

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 2-30			
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:			
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2018 Base Option Period Number 2			Title of Work Assignment/SF Site Name UIC Program ICR Renewal			
Contractor Cadmus Group LLC, The					Specify Section and paragraph of Contract SOW 4.3.2, 4.3.3				
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/01/2017 To 06/30/2018			
Comments:									
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund </div>									
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.									
SFO <input type="checkbox"/> (Max 2)									
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars) (Cents)	Site/Project (Max 8)	Cost Org/Code
1									
2									
3									
4									
5									
Authorized Work Assignment Ceiling									
Contract Period:		Cost/Fee:			LOE:				
09/01/2015 To 06/30/2018									
This Action:									
Total:									
Work Plan / Cost Estimate Approvals									
Contractor WP Dated:				Cost/Fee		LOE:			
Cumulative Approved:				Cost/Fee		LOE:			
Work Assignment Manager Name Kyle Carey <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code:			
						Phone Number: 202-564-2322			
						FAX Number:			
Project Officer Name Nancy Parrotta <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code:			
						Phone Number: 202-564-5260			
						FAX Number:			
Other Agency Official Name Lisa Mitchell-Flinn <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code:			
						Phone Number: 513-487-2852			
						FAX Number:			
Contracting Official Name Harold D. Hincks <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code:			
						Phone Number: 513-487-2146			
						FAX Number:			

PERFORMANCE WORK STATEMENT
Cadmus EP-C-15-022
Work Assignment No. 2-30
Issuance – June 30, 2018

I. ADMINISTRATIVE:

A. Title: UIC Program ICR Renewal

B. Work Assignment Manager:

Kyle Carey
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC:
4606M)
Washington, DC 20460
202-564-2322
carey.kyle@epa.gov

Alternate Work Assignment Manager:

Jeff Jollie
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC:
4606M)
Washington, DC 20460
202-564-3886
jollie.jeff@epa.gov

C. Quality Assurance:

The tasks in this work assignment require the use of primary and/or secondary data. Collection, use and analysis of data will be identical to the procedures described in the PQAPP completed under WA consistent with the Agency's quality assurance (QA) requirements, supplementing the programmatic quality assurance project plan (PQAPP). The project specific quality assurance requirements must be addressed in the monthly progress reports as specified under Task 0, below.

D. Background:

The Underground Injection Control (UIC) Program Information Collection Request (ICR) is the authoritative instrument for the collection of crucial data characterizing permitted injection well activity and compliance on a national scale. The data are used by EPA to understand UIC program implementation.

E. Quality Assurance:

Task(s) 1.2, 1.3, and 1.4 in this work assignment require the use of primary and/or secondary data. Consistent with the Agency's quality assurance (QA) requirements, the contractor must supplement the Contract-Level Quality Assurance Project Plan (QAPP), which has been provided by the contractor, to assure the quality of the data used under task(s) 1.2, 1.3, and 1.4 of this work assignment. Work on this/these task(s) cannot proceed until the contractor receives notification of the SQAPP approval from the PO via e-mail. The project specific quality assurance requirements must be addressed in the work plan and monthly progress reports as specified under Task 0, below.

II. OBJECTIVE:

The contractor shall provide technical and coordination support to Headquarters (HQ) for the UIC program ICR and associated reporting activities. Careful preparation of the ICR is crucial for clearance by the Office of Management and Budget (OMB). Contractor support will help HQ request, review, and incorporate input in order to update and renew the UIC program ICR. This WA supports the implementation of the UIC program under the Safe Drinking Water Act (SDWA). Work performed by the contractor is covered specifically under PWS tasks 4.3.2 and 4.3.3.

III. TASK DETAIL:

The contractor shall perform the following tasks:

Task 0 – Work Plan Submission

The contractor shall prepare a detailed work plan and budget for the accomplishment of the indicated tasks in accordance with the clause Work Assignments (EPAAR 1552.211-74). The work plan shall include a description of: (a) proposed staff; (b) the number of hours and labor classifications proposed for each task, broken down to task level, to include both prime contractor and subcontractor labor; and (c) a list of deliverables, with due dates and schedule for deliverables.

In addition, the contractor shall prepare a Supplemental Project Specific Quality Assurance Project Plan (SQAPP) appending the Contract-level Quality Assurance Project Plan (QAPP), noted above, and ensure the quality of secondary data used to complete these tasks. The work plan shall explain when the SQAPP will be submitted based on the specific data requirements of the WA. This task also includes monthly progress and financial reports. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA.

The tasks under this work assignment do not require the acquisition of “off-site” facilities for conferences and meetings as defined in the IPN 12-05 and the events associated with this work assignment are not covered by EPA Order 1900.3 and do not require EPA Form 5170.

The contractor shall immediately alert the WA COR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, AV and rental of venue costs, etc. The EPA WACOR will then prepare approval internal paperwork for the event and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Task 1

The contractor shall review the assumptions and relevant program information upon which the UIC program ICR was developed. The contractor shall directly or in a review capacity work to develop the documentation, forms, worksheets, and notices needed to obtain OMB clearance of the renewal package. As part of this effort the contractor will lead/support the:

1. Prepare and maintain a “living” timeline that includes task milestone requirements and completions.
2. Development and submittal of all documents supporting the ICR renewal package
3. Identify changes to the UIC program that may necessitate editing of the ICR to provide the most appropriate reporting. This includes: Program Activity Measures, 7520 forms and instructions, state program changes, and other relevant factors
4. Evaluation of the burden calculations in the current ICR, update as necessary and provide justification of any change in burden
5. Consultation with fewer than 10 state or other UIC stakeholders to obtain feedback on the existing ICR/ICR renewal
6. Support setting up a federal docket and issuance of two federal register notices
7. Organization and response to public comments on the ICR
8. Editing the 7520 forms as needed to meet the needs of the new ICR

IV. SCHEDULE OF DELIVERABLES:

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0: Work-plan Submission		
	Work-plan, budget, and QA supplemental	According to contract.
	Monthly progress reports	Monthly
Task 1:		
1.1	Detailed timeline	7 days after work-plan approval
1.2	Draft and final ICR	4/1/18 and upon OMB clearance
1.3	Overview of suggested changes to ICR	2/15/18
1.4	Overview of burden calculation changes	2/15/18
1.5	Language for consultation email	12/1/17
1.6		
1.7	Summary of docket comments	As scheduled in the FR
1.8	7520 forms	Post OMB clearance

V. MISCELLANEOUS

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: <http://www.section508.gov/>

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

VI. MEETINGS, CONFERENCES, TRAINING EVENTS, AWARD CEREMONIES AND RECEPTIONS

All appropriate clearances and approvals required by Agency policy in support of any and all conference related activities and expenses, including support of meetings, conferences, training events, award ceremonies and receptions, including the form 5170 for all meetings costing more than \$20,000, shall be obtained by the EPA CL-COR as needed and provided to the Contracting Officer (CO). Work under conference related activities and expenses shall not occur until this approval is obtained and provided by the EPA CL-COR.

VII. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, CL-COR and/or WACOR.

VIII. PRINTING

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

IX Quality Assurance Surveillance Plan

All task(s) identified in the performance work statement above are subject to review and approval by the EPA WACOR based on the general guidelines of the contract quality assurance surveillance plan regarding: Programmatic, cost control, timeliness/deliverables, and document development standards.

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 2-30				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2019			Title of Work Assignment/SF Site Name				
			Base Option Period Number 2			UIC Program ICR Renewal				
Contractor Cadmus Group LLC, The					Specify Section and paragraph of Contract SOW 4.3.2, 4.3.3					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance From 07/01/2017 To 06/30/2018					
Comments: The purpose of this amendment 1 to Cadmus (EP-C-15-022) WA 2-30 is to add 4 new sub-tasks under Task 1.8-7520 Forms.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> (Max 2) Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE:				
09/01/2015 To 06/30/2019										
This Action:										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee			LOE:			
Cumulative Approved:				Cost/Fee			LOE:			
Work Assignment Manager Name Kyle Carey							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 202-564-2322			
							FAX Number:			
Project Officer Name Nancy Parrotta							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 202-564-5260			
							FAX Number:			
Other Agency Official Name Lisa Mitchell-Flinn							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 513-487-2852			
							FAX Number:			
Contracting Official Name Angela Lower							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 513-487-2036			
							FAX Number:			

PERFORMANCE WORK STATEMENT
Cadmus EP-C-15-022
Work Assignment No. 2-30
Amendment 1

I. ADMINISTRATIVE:

A. Title: UIC Program ICR Renewal

B. Work Assignment Manager:

Kyle Carey
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC:
4606M)
Washington, DC 20460
202-564-2322
carey.kyle@epa.gov

Alternate Work Assignment Manager:

Jeff Jollie
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC:
4606M)
Washington, DC 20460
202-564-3886
jollie.jeff@epa.gov

Background:

The Underground Injection Control (UIC) Program Information Collection Request (ICR) is the authoritative instrument for the collection of crucial data characterizing permitted injection well activity and compliance on a national scale. The data are used by EPA to understand UIC program implementation.

Quality Assurance:

Task(s) 1.2, 1.3, and 1.4 in this work assignment require the use of primary and/or secondary data. Consistent with the Agency's quality assurance (QA) requirements, the contractor must supplement the Contract-Level Quality Assurance Project Plan (QAPP), which has been provided by the contractor, to assure the quality of the data used under task(s) 1.2, 1.3, and 1.4 of this work assignment. Work on this/these task(s) cannot proceed until the contractor receives notification of the SQAPP approval from the PO via e-mail. The project specific quality assurance requirements must be addressed in the work plan and monthly progress reports as specified under Task 0, below.

II. OBJECTIVE:

The purpose of Amendment 1 to WA 2-30 is to provide additional funds to complete existing tasks under the WA and to complete new sub-tasks under 1.8. Language that has been added under Amendment 1 are in italics. Review of the UIC program ICR has required more time and attention than initially estimated by the contractor due to in-depth review of UIC program

reporting forms (i.e. 7520 forms) by regional UIC program staff. The work on the 7520 forms has resulted in significant reductions in the estimated burden associated with owner and operator reporting as well as EPA review of submitted information. Amendment 1 will allow the contractor to continue to support HQ UIC program to update and renew the UIC program ICR. Amendment 1, like the initial WA, supports the implementation of the UIC program under the SDWA. Work performed by the contractor is covered specifically under tasks 4.3.2 and 4.3.3.

III. TASK DETAIL:

The contractor shall perform the following tasks:

Task 0 – Work Plan Submission

The contractor shall prepare a detailed work plan and budget for the accomplishment of the indicated tasks in accordance with the clause Work Assignments (EPAAR 1552.211-74). The work plan shall include a description of: (a) proposed staff; (b) the number of hours and labor classifications proposed for each task, broken down to task level, to include both prime contractor and subcontractor labor; and (c) a list of deliverables, with due dates and schedule for deliverables.

In addition, the contractor shall prepare a Supplemental Project Specific Quality Assurance Project Plan (SQAPP) appending the Contract-level Quality Assurance Project Plan (QAPP), noted above, and ensure the quality of secondary data used to complete these tasks. The work plan shall explain when the SQAPP will be submitted based on the specific data requirements of the WA. This task also includes monthly progress and financial reports. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA.

The tasks under this work assignment do not require the acquisition of “off-site” facilities for conferences and meetings as defined in the IPN 12-05 and the events associated with this work assignment are not covered by EPA Order 1900.3 and do not require EPA Form 5170.

The contractor shall immediately alert the WA COR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, AV and rental of venue costs, etc. The EPA WAM will then prepare approval internal paperwork for the event and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Task 1.0

The contractor shall review the assumptions and relevant program information upon which the UIC program ICR was developed. The contractor shall directly or in a review capacity work to develop the documentation, forms, worksheets, and notices needed to obtain OMB clearance of the renewal package. As part of this effort the contractor will lead/support the:

1. Prepare and maintain a “living” timeline that includes task milestone requirements and completions.
2. Development and submittal of all documents supporting the ICR renewal package
3. Identify changes to the UIC program that may necessitate editing of the ICR to provide the most appropriate reporting. This includes: Program Activity Measures, 7520 forms and instructions, state program changes, and other relevant factors
4. Evaluation of the burden calculations in the current ICR, update as necessary and provide justification of any change in burden
5. Consultation with fewer than 10 state or other UIC stakeholders to obtain feedback on the existing ICR/ICR renewal
6. Support setting up a federal docket and issuance of two federal register notices
7. Organization and response to public comments on the ICR
8. *Create and edit 7520 forms as recommended by the UIC program to meet regional program needs and reduce reporting burden. Sub-tasks a – d are detailed below.*

IV. SCHEDULE OF DELIVERABLES:

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0: Work-plan Submission		
	Work-plan, budget, and QA supplemental	According to contract.
	Monthly progress reports	Monthly
Task 1:		
1.1	Detailed timeline	<i>In work plan</i>
1.2	Draft and final ICR	<i>In work plan</i>
1.3	Overview of suggested changes to ICR	<i>In work plan</i>
1.4	Overview of burden calculation changes	<i>In work plan</i>
1.5	Language for consultation email	<i>Concurrent with public comment period</i>
1.6		
1.7	Summary of docket comments	As scheduled in the FR
1.8	7520 forms	<i>Draft after public comments on ICR, Final with OMB approval</i>
1.8a	<i>Create the fronts and backs of at a minimum 10 new 7520 forms</i>	Upon Written Technical Direction
1.8b	<i>Create a new 7520-13 form</i>	Upon Written Technical Direction
1.8c	<i>Review the backs of all 7520 forms</i>	Upon Written Technical Direction
1.8d	<i>Prepare an ICR appendix documenting the form revision/burden reduction process</i>	Upon Written Technical Direction

V. MISCELLANEOUS

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: <http://www.section508.gov/>

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

VI. Quality Assurance Surveillance Plan

All task(s) identified in the performance work statement above are subject to review and approval by the EPA WAM based on the general guidelines of the contract quality assurance surveillance plan regarding: Programmatic, cost control, timeliness/deliverables, and document development standards.

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 2-31				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2018 Base Option Period Number 2			Title of Work Assignment/SF Site Name UV Disinfection				
Contractor Cadmus Group LLC, The					Specify Section and paragraph of Contract SOW 2.2, 2.3, 5.0, 7.4.1					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 11/02/2017 To 06/30/2018				
Comments:										
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund </div>										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO <input type="checkbox"/> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
09/01/2015 To 06/30/2018				0						
This Action:				160						
Total:				160						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Jeff Adams <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-569-7835 FAX Number:				
Project Officer Name Nancy Parrotta <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-5260 FAX Number:				
Other Agency Official Name Lisa Mitchell-Flinn <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2852 FAX Number:				
Contracting Official Name Harold D. Hincks <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2146 FAX Number:				

PERFORMANCE WORK STATEMENT
EP-C-15-022
Work Assignment 2-31
Issuance to June 30, 2018

I. ADMINISTRATIVE:

A. Title: Approaches for Validation of Ultraviolet (UV) Disinfection Reactors for Drinking Water Systems

B. Work Assignment Contracting Officer's Representative (WACOR):

Jeffrey Q Adams
Office of Research and Development
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Alternate Work Assignment Contracting Officer's Representative (WACOR):

Craig Patterson
Office of Research and Development
(ORD)
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Cincinnati, OH 45268
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Patterson.craig@epa.gov

C. Quality Assurance:

Task 1 in this work assignment requires the use of primary and/or secondary data. Consistent with the Agency's quality assurance (QA) requirements, the contractor must supplement the Contract-Level Quality Assurance Project Plan (QAPP), which has been provided by the contractor, to assure the quality of the data used under task 1 of this work assignment. Work on this task cannot proceed until the contractor receives notification of the SQAPP approval from the PO via e-mail. Collection, use and analysis of data will be identical to the procedures described in the Project Specific Quality Assurance Project Plan (SQAPP) completed under Task Order 11 of STREAMS II Contract EP-C-11-039, which will be the basis of the new supplemental Project Specific Quality Assurance Project Plan (SQAPP) to be approved for tasks under this WA.

The project specific quality assurance requirements must be addressed in the work plan and monthly progress reports as specified under Task 0, below.

D. Background:

Public water systems (PWSs) have implemented ultraviolet (UV) disinfection for the inactivation of regulated pathogens in accordance with the requirements of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) and the Ground Water Rule (GWR), and the guidance provided by the Ultraviolet Disinfection Guidance Manual (UVDGM). Since the UVDGM was published in 2006, there has been considerable advancement in the

understanding and application of UV technologies, particularly in the area of UV dose monitoring and validation.

Under Task Orders 6,8,11 of STREAMS II Contract EP-C-11-039, EPA and extramural collaborators conducted bench and pilot-scale UV disinfection studies and prepared a draft report concerning new UV validation protocols. The purpose of this document is to present new approaches for UV implementation that leverage advances of practice over the last decade and lessons-learned from the EPA studies conducted. This document also provides for clarifications and updates to the UVDGM based on the advances achieved in the UV industry since its publication. The contents of this document should not be construed as a replacement to the 2006 UVDGM but rather additional approaches for consideration. It is also important to note that while the information in this document may have broad applicability to PWSs, EPA is not suggesting that existing systems validated within the guidelines of the UVDGM are operating poorly or are not meeting their disinfection targets.

Under Contract EP-C-11-039, the draft report could not be completed thru finalization prior to Contract close-out. The Tasks under this work assignment will support efforts toward revision of report content and development of new content with support limited to a specified LOE.

The audience for this document includes UV system manufacturers, validators, consultants, utilities and regulators. UV system manufacturers and validators are provided detailed information for defining, validating, and implementing four new calculated dose monitoring algorithms. These approaches may provide utilities with more cost-effective and simpler UV implementation. Regulators are provided details on the new approaches, including checklists and validation report outlines that can be used as the basis for approving systems. Regulators are also provided clarifications on the UVDGM that support approaches currently being used but not documented in the UVDGM.

II. OBJECTIVE:

The contractor and subcontractors shall support EPA in: revision of existing report content and development of new content for the subject UV guidance/recommendations document; conducting literature reviews, performing UV reactor modelling, statistical analyses and conceptual proofs, revising report content and development of new content, research related to UV issues; and supporting the ongoing voluntary stakeholder peer review workgroup providing comments and suggested revisions to the report.

This work will be completed commensurate with Sections 2.2, 2.3,5.0, and 7.4.1 of the Contract Level PWS. The level of effort estimated for this work assignment is: 160 hours. This WA provides a specified level of effort to further revise the content of the report based on peer review and stakeholder feedback, and may not result in a final edited version of the report ready for publication

III. TASK DETAIL:

The contractor shall perform the following tasks:

Task 0: Work Plan and Monthly Progress Reports

The contractor shall develop a work plan in accordance with the contract requirements that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs.

In addition, the contractor shall prepare a Supplemental Project Specific Quality Assurance Project Plan (SQAPP) appending the Contract-level Quality Assurance Project Plan (QAPP), noted above, and ensure the quality of secondary data used to complete these tasks. The work plan shall explain when the SQAPP will be submitted based on the specific data requirements of the WA. Work on these tasks cannot proceed until the contractor receives notification of the new SQAPP approval from the CL-COR via e-mail.

This task also includes monthly progress and financial reports; all reports shall be submitted pursuant to Attachment 2 of the contract. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. The contractor shall immediately notify the Contract Level Contracting Officer Representative (CL-COR) and Work Assignment Contracting Officer Representative (WACOR) if any changes to the tasks involving the collection and analysis of the data occur and prepare a new SQAPP supplementing the Contract QAPP accordingly. Work on these tasks cannot proceed until the contractor receives notification of the new SQAPP approval from the CL-COR via e-mail.

Deliverables: Work plan, Supplemental Project Specific Quality Assurance Project Plan, monthly progress and financial reports.

Task 1: Technical Guidance Revision

EPA is in the process of revising a technical recommendations/guidance document to support UV disinfection implementation under the SWTR & GWR.

Subtask 1.1: Technical Guidance Revision Support

EPA is currently reviewing public and internal reviewer comments on draft technical recommendations/guidance documentation developed under EP-C-11-039 TOs 6,8,11 with Cadmus and subcontractors. Currently, a voluntary peer review workgroup comprised of about twenty-five stakeholders including UV manufacturers, consulting engineers, scientists,

academia, regulatory community, and water utilities have been reviewing and discussing the content of the draft report on weekly conference calls. Comments and questions have focused on both text revision suggestions to communicate content with better clarity and proposed technical content that might be revised or additional new content to support the recommendations of the report.

The contractor shall monitor the progress of the workgroup review activity and provide support in responding to the comments and suggestions through the level of effort for the activity:

- Participation by the report's lead author in technical workgroup activity is critical to provide real-time responses during workgroup discussions. Lead author will attend weekly conference calls to address questions and comments from the review team including preparation of revised or new content for discussions and the report.
- The contractor will coordinate compilation of revised content from various workgroup members to manage a master version of the draft changes to the report.
- In response to comments and questions that arise during the conference calls, the contractor will:
 - conduct UV reactor modelling
 - perform statistical analysis of data
 - develop additional conceptual proofs
 - craft additional text content and conduct literature reviews
- The contractor shall provide a final revised draft document based on changes from the peer review and stakeholder feedback by the end of the period of performance. This revised draft version may not be a version that is ready for publication.

For estimation purposes, the contractor shall assume one-hour weekly conference calls with workgroup review members for a three-month interval. The current draft document is approximately two hundred pages in length. It is anticipated that approximately a quarter of the draft content may have suggested revisions ranging from a sentence to a paragraph in length, with perhaps up to two dozen revisions in tables or graphs or additional tables and graphs. A draft of each revised section of the report shall be delivered in an electronic form to the EPA WACOR no more than 20 business days after receipt of written technical direction from the EPA WACOR.

Following the workgroup review/revision process, and upon receipt and response to final comments from the EPA WACOR, the contractor shall deliver a complete current revised draft report by the end of the period of performance via email within 15 business days. This revised version may still be considered a pre-publication draft version not finalized for publication. Due to the complexity of many sections of the report, anticipating that further report edits are likely to occur before a final version of the report is completed for publication, the contractor will not be required to edit, format and conduct 508 compliance formatting (in compliance with Section 508 of the Rehabilitation Act of 1973) on subject report sections. The 508 compliance formatting effort will be performed under a separate effort once a final report version is prepared.

Deliverables: Revised document sections, completed revised draft guidance report based on response to all comments throughout the LOE.

IV. SCHEDULE OF DELIVERABLES:

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0: Work Plan and Monthly Progress Reports		
	Work plan, budget, QAPP and QA supplemental	According to contract
	Monthly progress and financial reports	Monthly
Task 1: Technical Guidance Finalization		
	1.1: Draft revised guidance sections	Within 20 business days of receipt of written technical direction, topic areas and public comments from the EPA WACOR
	1.1: Completed revised guidance report	Within 15 business days of receipt of comments from the EPA WACOR

V. MISCELLANEOUS

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: <http://www.section508.gov/>

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

VI. TRAVEL

No contractor travel is anticipated over the duration of the performance period.

VII. MEETINGS, CONFERENCES, TRAINING EVENTS, AWARD CEREMONIES AND RECEPTIONS

All appropriate clearances and approvals required by Agency policy in support of any and all conference related activities and expenses, including support of meetings, conferences, training events, award ceremonies and receptions, including the form 5170 for all meetings costing more than \$20,000, shall be obtained by the EPA CL-COR as needed and provided to the Contracting Officer (CO). Work under conference related activities and expenses shall not occur until this approval is obtained and provided by the EPA CL-COR.

VIII. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, CL-COR and/or WACOR.

IX. PRINTING

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

X. QUALITY ASSURANCE AND SURVEILLANCE PLAN (QASP)

The contract QASP is applicable to this WA.

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 2-32				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2018 Base Option Period Number 2			Title of Work Assignment/SF Site Name GS Class VI Rule Implementatio				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW 2.2, 2.3, 4.3					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/01/2017 To 06/30/2018				
Comments: All tasks under this work assignment are authorized for immediate start but work shall not commence until 7/1/17.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
09/01/2015 To 06/30/2018				0						
This Action:				2,769						
Total:				2,769						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name MaryRose Bayer <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-1981 FAX Number:				
Project Officer Name Nancy Parrotta <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-5260 FAX Number:				
Other Agency Official Name Lisa Mitchell-Flinn <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2852 FAX Number:				
Contracting Official Name Noelle Mills <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2171 FAX Number:				

PERFORMANCE WORK STATEMENT
EP-C-15-022
Work Assignment 2-32
July 1, 2017 to June 30, 2018

I. ADMINISTRATIVE:

A. Title: Geologic Sequestration: Class VI Rule Implementation and Permitting Support

B. Work Assignment Contracting Officer's Representative (WACOR):

Mary Rose Bayer
Office of Ground Water and Drinking Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC: 4606M)
Washington, DC 20460
202-564-1981
Bayer.maryrose@epa.gov

Alternate Work Assignment Contracting Officer's Representative (WACOR):

Suzanne Kelly
Office of Ground Water and Drinking Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC: 4606M)
Washington, DC 20460
202-564-3887
kelly.suzanne@epa.gov

C. Quality Assurance:

Task(s) 1 through 5 in this work assignment require quality assurance (QA). Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) completed under task(s) 0 of WA0-32, consistent with the Agency's Quality Assurance (QA) requirements, appending the Contract Quality Assurance Project Plan (QAPP). The project specific QA requirements must be addressed in the monthly progress reports as specified under Task 0, below.

D. Background:

Geologic Sequestration (GS) is the process of injecting carbon dioxide (CO₂) captured from an emission source (e.g., a power plant or industrial facility) into deep subsurface rock formations for long-term storage. It is part of a process known as "carbon capture and storage," or CCS. The Environmental Protection Agency's (EPA's) Underground Injection Control (UIC) Program regulations are designed to protect underground sources of drinking water (USDW) from injection related activities. Endangerment can occur when well construction, operation, maintenance, conversion, plugging, abandonment, and other injection activities cause a fluid to enter a USDW or when the fluid is injected directly into a USDW. To prevent endangerment, EPA's UIC Program Class VI regulations establish "minimum requirements" for: permitting, siting, area of review evaluation, corrective action, well construction, operation, inspection, monitoring, recordkeeping, reporting, post-injection site care, plugging and abandonment, site closure and financial responsibility. EPA is currently implementing the Class VI regulations

nationally. The tasks under this work assignment support Class VI implementation, guidance development, technical permitting assistance, and fulfillment of the Agency's goal of protecting USDWs.

II. OBJECTIVE:

The contractor shall support EPA in: finalizing guidance documents; conducting literature reviews and research related to GS and CCS issues; and supporting implementation through Class VI-related technical assistance.

This work will be completed commensurate with Sections 2.2, 2.3, and 4.3 of the Contract Level PWS. The level of effort estimated for this work assignment is: 2,769 hours.

III. TASK DETAIL:

The contractor shall perform the following tasks:

Task 0: Work Plan and Monthly Progress Reports

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 0-32 and 1-32. This task also includes monthly progress and financial reports which are to be submitted pursuant to Attachment 2 of the contract. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. The work plan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed under Task(s) 0 of WA 0-32. The contractor shall immediately notify the Contract Level Contracting Officer Representative (CL-COR) and Work Assignment Contracting Officer Representative (WACOR) if any changes to the tasks involving the collection and analysis of the data occur and prepare a new SQAPP supplementing the Contract QAPP accordingly. Work on these tasks cannot proceed until the contractor receives notification of the new SQAPP approval from the CL-COR via e-mail.

Task 1: Technical Guidance Finalization

EPA is in the process of finalizing a series of technical guidance documents to support Class VI implementation.

Subtask 1.1: Technical Guidance Revision Support

EPA is currently reviewing public and internal reviewer comments on technical guidance documents developed and posted to EPA's website for comment under a previous contract and is deliberating on technical issues covered in these documents. Comments received focus on technical issues, regulatory requirements, the rulemaking process and requests for additional clarity.

The contractor shall conduct research and technical analyses in support of responding to select public or technical/management review comments and revising the following documents in support of their finalization:

- The Final Implementation Manual;
- The Final Class II-VI Transition Guidance.

EPA anticipates technical analyses will focus on topics including: standard operating procedures during permitting, injection and post-injection at Class VI projects; and the risk "profile" or risks posed at Class II Enhanced Oil Recovery (EOR) projects.

For estimation purposes, the contractor shall assume supporting development of four discrete sections of the guidance documents. Following receipt of written technical direction and public comments on a specific topic from the EPA WACOR (as indicated above), the contractor shall develop a revised guidance section on a specific topic.

For estimation purposes, the contractor shall assume development of four revised guidance sections (each approximately 30 pages in length). The contractor shall perform a literature search and review of existing information to develop these revised guidance sections. A draft of each revised guidance section shall be delivered in an electronic form to the EPA WACOR no more than 20 business days after receipt of written technical direction from the EPA WACOR. Upon receipt of comments from the EPA WACOR, the contractor shall finalize and deliver a final revised guidance section via email within 15 business days.

Subtask 1.2: Injection Depth Waiver Guidance Public Comment Organization and Finalization Support

During the performance period for this work assignment, EPA anticipates posting for public comment the Draft Injection Depth Waiver Guidance (developed under a previous contract) on EPA's website.

In support of guidance finalization, the contractor shall develop a simple system (e.g., excel spreadsheet or word table) to manage public comments received on the Draft Injection Depth Waiver Guidance. For estimation purposes, the contractor shall assume receipt of no more than 20 substantive public comments. (Note: the EPA WACOR will receive public comments internally and send comments to the contractor via email).

Following receipt of final public comments from the EPA WACOR, within fifteen business days, the contractor shall provide technical recommendations to the EPA WACOR regarding

the best approach to address the comments, including, as directed, revisions to the guidance text or additional, brief paragraphs. Following conclusion of the EPA WACOR's evaluation of the contractor's recommended approach, the contractor shall maintain a record of the final approach to address each comment to facilitate formatting for finalization of the documents under Subtask 1.3.

Subtask 1.3: Technical Guidance Formatting

As a follow-on to work conducted under a previous contract and to facilitate technical guidance document finalization, the contractor shall copy edit, format and conduct 508 compliance formatting (in compliance with Section 508 of the Rehabilitation Act of 1973) on the following documents:

- The Final Implementation Manual (150 pages);
- The Final Injection Depth Waiver Guidance (95 pages), comment table and public comments;
- The Final Class II-VI Transition Guidance (93 pages), comment table and public comments;
- A Revised Class VI Injection Well Construction Guidance (58 pages).

The contractor shall finalize the guidance and conduct 508 compliance formatting (in compliance with Section 508 of the Rehabilitation Act of 1973) within 12 business days of receipt of final documents from the EPA WACOR. For estimation purposes, the contractor should use the page numbers of the draft guidance documents listed above and assume that the associated comment tables and public comments documents will each be approximately 100 pages in length.

Task 2: GS and CCS Issue Paper Development Support

Many critical economic, scientific, and institutional issues arise during rule implementation that require analysis to support Agency deliberations, management briefings, and internal discussions. Because of the highly complex nature of GS and CCS, some issue papers may be required to ensure that the Agency has the information to implement the rule and coordinate with co-regulators in 2017/2018.

The background papers may address topics such as:

- Geologic Sequestration injection and monitoring technology developments and innovations;
- The Class VI permit application review process;
- Domestic enhanced recovery operations;
- Other to be determined.

The contractor shall develop approximately two issue papers in support of this task. Each issue paper shall be 10-20 pages in length. The contractor shall also perform a literature search and

review of existing information to develop these issue papers. A draft of each issue paper shall be delivered in an electronic form to the EPA WACOR no more than 20 business days after receipt of technical direction via email from the EPA WACOR. Upon receipt of comments from the EPA WACOR, the contractor shall finalize and deliver a final issue paper within 15 business days. For planning purposes, the contractor shall assume that these papers will be developed independent of one another.

Task 3: Regional Permitting Support

As of September 7, 2011, EPA directly implements the Class VI rule nationally. Due to the technical complexity of Class VI GS well requirements, permit applicants and EPA Regions have turned to the EPA GS team (located in Washington, DC) for support in the permitting process. The contractor shall provide support to EPA in early discussions and data/information evaluations with prospective Class VI permit applicants.

Subtask 3.1: Permitting Support

The contractor shall support EPA in reviewing select pre-application information and/or parts of draft Class VI geologic sequestration permit applications (e.g., initial Area of Review (AoR) model; project plans; financial responsibility demonstrations; non-endangerment demonstrations; well construction schematics; etc.). EPA will provide the contractor with the draft permit application and/or information upon receipt from the (prospective) permit applicants/Regions seeking support. For estimation purposes, the contractor shall assume supporting EPA in review of four discrete technical areas/topics (see examples above).

Within 10 weeks of receipt of the draft permit application (or information) the contractor shall conclude the following:

- 1) Review of the draft permit application or information to ensure that the information submitted is complete, in accordance with the requirements of 40 CFR 144 and 146;
- 2) Identification of technical issues that may require additional attention and detail; and,
- 3) Development of a list of questions that require follow-up correspondence with the permit applicant or research on the part of the permit writer.

The contractor shall provide a draft summary report of their review including responses to items 1 through 3 above to the EPA WACOR for review and comment. Upon receipt of comments from the EPA WACOR, the contractor shall finalize each permit summary report within 10 business days. For purposes of estimation, the summaries will be approximately 10-30 pages in length.

Subtask 3.2: Technical Calls

The contractor shall anticipate participating in eight, two-hour conference calls with EPA and the prospective applicant. It is not anticipated that the outcome of these calls will change the scope of the contractor's work but will serve to communicate specific details and/or

decisions to the prospective permit applicant to inform their understanding of the Class VI rule.

Task 4: Technical Permitting Support: Region 5

In 2014, EPA issued two Class VI permits to Archer Daniels Midland (ADM), located in Decatur, IL (in Region 5). During the performance period of this WA, EPA anticipates evaluation of operational and post-injection site care information submitted pursuant to Class VI requirements for the ADM CCS#1 and CCS#2 wells (e.g., routine monitoring data; reports; AoR revisions). Due to the technical complexity of Class VI requirements, the Agency's commitment to safe and effective deployment of Carbon Capture and Storage technologies, and protection of USDWs, it is incumbent upon the EPA that we make timely, technically sound decisions in response to permittee submittals.

Subtask 4.1: AoR Reevaluations

As a follow-on to work conducted under a previous contract and WA's, the contractor shall provide technical support to EPA in reviewing information on the geological conditions at the ADM geologic sequestration site—particularly with respect to the Area of Review delineated using computational modeling (e.g., reviewing the model input and output files provided to the contractor by the EPA WACOR). The contractor shall conduct independent model simulations using STOMP (Subsurface Transport Over Multiple Phases) to inform decisions regarding the appropriateness of the permittee's AoR and associated model simulation(s) at the ADM project. Following model simulations, the contractor shall develop a report that is informed by the independent model simulations and that addresses the following questions:

- Do the independent modeling results conducted by the contractor agree with those submitted by the permittee? How do the model simulations differ between the permittee's submittals and the contractor's simulations? Are the permittee's simulations similarly conservative in comparison to the contractor's simulations? Will the submitted modeled parameter values result in a conservative outcome?
- Are the sensitivity analyses a valid indicator of a conservative outcome?
- Are the submitted geological models valid representations of the geological conditions at the site when compared against the other project-related information submitted by the permittee?
- Is the calibration valid? If yes, how was that conclusion reached? If not, what recommendations can be made to address this issue?
- Based on the results of the analysis and the responses to these questions, does the contractor recommend any revisions to the original model or running additional simulations? If yes, what additional conditions should be considered?
- How does the reevaluation compare to the initially delineated Area of Review (i.e., in the permit at the time of authorization to inject)?

For estimation purposes, the contractor shall assume that the report generated will be 15-20 pages in length. Following receipt of the appropriate supporting documents from the EPA WACOR, the contractor shall conduct the modeling simulations and provide a draft report to the EPA WACOR for review and comment within 10 weeks. Upon receipt of comments by the EPA WACOR, the contractor shall finalize the report within 10 business days.

Subtask 4.2: Class VI Data Review

During the performance period of this WA, the Agency will receive additional data on the ADM wells (i.e., CCS#1 and CCS#2) including: operational reporting; testing and monitoring results; financial responsibility annual certification. This data will require analysis by geologists, well engineers, financial experts, and computational modeling experts to support EPA decision-making related to the Class VI wells.

To support the evaluation of this information, the Contractor shall, upon receipt of technical direction and copies of the data (e.g., operational reporting; testing and monitoring results; financial responsibility documents), review the data/information and prepare a summary report that:

- Assesses whether the information meets the relevant requirements at 40 CFR 146.83 through 146.94;
- Identifies technical issues or questions for the permittee related to the information collected/submitted by the permittee;
- Identifies any discrepancies between the predicted values and the measured values resulting from testing and monitoring at the project; and
- Identifies the potential need for a permit modification per requirements at 40 CFR 144.39 and 144.41.

For estimation purposes, the Contractor shall, upon receipt of information from the EPA WACOR, review and develop a draft summary within 20 business days. Upon receipt of comments on the draft summary from the EPA WACOR, the contractor shall finalize the summary within ten business days.

Subtask 4.3: Project Check-In Calls (Region 5)

In support of ongoing Class VI project management, the contractor shall participate in six conference calls of the Class VI permit review team. For estimation purposes, it is anticipated that these calls will be one hour in length and provide an opportunity for dialogue, question and answer and coordination among team members. It is not anticipated that the outcome of these calls will change the scope of contractor's work but will serve to clarify specific details and/or decisions regarding the permit application reviews.

Subtask 4.4: Permit Appeal Support

Final EPA UIC permitting actions are open to public appeal to the Environmental Appeals Board (EAB). In the event that an appeal is made on an EPA permitting decision, Region 5

and the UIC GS team will have approximately 20 days to develop a technical response and file it with the EAB.

In support of appeal response development and following receipt of specific topics from the EPA WACOR, the contractor shall develop four 3-5 page technical documents outlining specific permitting decisions. The contractor shall deliver a draft of each technical document to the EPA WACOR within 5 business days of receipt of technical direction/topic areas. Following receipt of comments from the EPA WACOR, the contractor shall finalize the document within 5 business days.

Task 5: Technical Permitting Support: Region 7

Due to the technical complexity of Class VI GS wells, the promulgation of the Class VI requirements, and the volume of information received or anticipated to be received by EPA (Region 7), EPA requires targeted support in: evaluating Class VI project information (e.g., e.g., routine monitoring data; reports; AoR revisions; financial responsibility annual certification); identifying a need for a Class VI permit modification; and/or addressing an appeal of the EPA's permit decision on the Berexco LLC project.

Subtask 5.1: AoR Reevaluation

As a follow-on to work conducted under a previous contract and work assignment, the contractor shall provide technical support to EPA in reviewing information on the geological conditions at the Berexco geologic sequestration site in Wellington, KS (Region 7) – particularly with respect to the Area of Review delineated using computational modeling (e.g., reviewing the model input and output files provided to the contractor by the EPA WACOR). The contractor shall conduct independent model simulations using STOMP (Subsurface Transport Over Multiple Phases) to inform decisions regarding the appropriateness of the permittee's AoR and associated model simulation(s) at the Berexco project. Following model simulations, the contractor shall develop a report that is informed by the independent model simulations and that addresses the following questions:

- Do the independent modeling results conducted by the contractor agree with those submitted by the permittee? How do the model simulations differ between the permittee's submittals and the contractor's simulations? Are the permittee's simulations similarly conservative in comparison to the contractor's simulations? Will the submitted modeled parameter values result in a conservative outcome?
- Are the sensitivity analyses a valid indicator of a conservative outcome?
- Are the submitted geological models valid representations of the geological conditions at the site when compared against the other project-related information submitted by the permittee?
- Is the calibration valid? If yes, how was that conclusion reached? If not, what recommendations can be made to address this issue?

- Based on the results of the analysis and the responses to these questions, does the contractor recommend any revisions to the original model or running additional simulations? If yes, what additional conditions should be considered?
- How does the reevaluation compare to the initially delineated Area of Review (i.e., in the permit at the time of authorization to inject)?

For estimation purposes, the contractor shall assume that the report generated will be 15-20 pages in length. Following receipt of the appropriate supporting documents from the EPA WACOR, the contractor shall conduct the modeling simulations and provide a draft report to the EPA WACOR for review and comment within 10 weeks. Upon receipt of comments by the EPA WACOR, the contractor shall finalize the report within 10 business days.

Subtask 5.2: Class VI Data Review

In support of EPA's Class VI implementation and project management, the contractor shall provide support in reviewing select information from the Class VI geologic sequestration project (e.g., the updated AoR delineation; revised project plans; annual financial responsibility certification; non-endangerment demonstration). EPA will provide the contractor with the information upon receipt from the permittee.

To support the evaluation of this information, the Contractor shall, upon receipt of technical direction and copies of the data (e.g., revised project plans; annual financial responsibility certification; non-endangerment demonstration), review each data set and prepare a summary report that:

- Assesses whether the information meets the relevant requirements at 40 CFR 146.83 through 146.94;
- Identifies technical issues or questions for the permittee related to the information collected/submitted by the permittee;
- Identifies any discrepancies between the predicted values and the measured values resulting from testing and monitoring at the project; and
- Identifies the potential need for a permit modification per requirements at 40 CFR 144.39 and 144.41.

For estimation purposes, the Contractor shall, upon receipt of information from the EPA WACOR, review and develop a draft summary within 20 business days. Upon receipt of comments on the draft summary from the EPA WACOR, the contractor shall finalize the summary within ten business days.

Subtask 5.3: Draft Permit Decision Response to Comments Support

In support of ongoing Class VI permitting activities, the contractor shall provide support to organize, manage and respond to public comments received by the EPA on the Class VI Berexco, LLC permit in Region 7.

For estimation purposes, the contractor shall anticipate:

- That EPA will receive approximately 150 substantive comments;
- Supporting comment coding, organization and categorization/logging of the comments in either Excel or a Word table format using predefined coding categories upon receipt from the EPA WACOR;
- Developing technical responses principally in the areas of Testing and Monitoring, Area of Review Delineation/Computational Modeling, and Financial Responsibility and thus requiring the expertise of geologists, well engineers, computational modelers, financial responsibility experts; and
- Coordinating development of final responsiveness summaries (one for each project) in Word.

The contractor shall develop draft responses to select technical comments within 15 business days of receipt of topic area tables and comments from the EPA WACOR.

The contractor shall compile and deliver a final responsiveness summary to the EPA WACOR 5 business days after receipt of final comment-response documents from the EPA WACOR.

Subtask 5.4: Permit Appeal Support

Final EPA UIC permitting actions are open to public appeal to the Environmental Appeals Board (EAB). In the event that an appeal is made on an EPA permitting decision, Region 7 and the UIC GS team will have approximately 20 days to develop a technical response and file it with the EAB.

In support of appeal response development and following receipt of specific topics from the EPA WACOR, the contractor shall develop two 3-5 page technical documents outlining specific permitting decisions. The contractor shall deliver a draft of each technical document to the EPA WACOR within 5 business days of receipt of technical direction/topic areas. Following receipt of comments from the EPA WACOR, the contractor shall finalize the document within 5 business days.

Subtask 5.5: Project Check-In Calls (Region 7)

In support of ongoing Class VI project management, the contractor shall participate in monthly conference calls of the Class VI project team. For estimation purposes, it is anticipated that these calls will be one hour in length and provide an opportunity for dialogue, question and answer and coordination among team members. It is not anticipated that the outcome of these calls will change the scope of contractor's work but will serve to clarify specific details and/or decisions regarding the Class VI project.

IV. SCHEDULE OF DELIVERABLES:

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0: Work Plan and Monthly Progress Reports		
	Work plan, budget, QAPP and QA supplemental	According to contract
	Monthly progress and financial reports	Monthly
Task 1: Technical Guidance Finalization		
	1.1: Draft revised guidance sections	Within 20 business days of receipt of written technical direction, topic areas and public comments from the EPA WACOR
	1.1: Final revised guidance sections	Within 15 business days of receipt of comments from the EPA WACOR
	1.2: Excel Spreadsheet/Word table and technical recommendations	Within 15 business days of receipt of final public comments from the EPA WACOR
	1.3: Revised and/or Final guidance, comment table(s) and public comment(s) in 508 compliant pdfs	Within 12 business days of receipt of final documents from the EPA WACOR
Task 2: GS and CCS Issue Paper Development Support		
	Draft issue paper(s)	20 business days after receipt of written technical direction from the EPA WACOR
	Final issue paper(s)	15 business days after receipt of comments from the EPA WACOR
Task 3: Regional Permitting Support		
	3.1 Draft permit summary report	Within 10 weeks of receipt of draft permit application/information from the EPA WACOR
	3.1 Final permit summary report	10 business days after receipt of comments from the EPA WACOR
Task 4: Technical Permitting Support: Region 5 Permits		
	4.1: Draft report of the AoR reevaluation	Within 10 weeks of receipt of information from the EPA WACOR
	4.1: Final report of the AoR reevaluation	Within 10 business days of comments from the EPA WACOR

	4.2: Draft summary report	Within 20 business days of receipt of information from the EPA WACOR
	4.2: Final report	Within 10 business days of receipt of comments from the EPA WACOR
	4.4: Draft technical response	Within 5 business days of technical direction from the EPA WACOR
	4.4: Final technical response	Within 5 business days of receipt of comments from the EPA WACOR
Task 5: Technical Permitting Support: Region 7 Permit		
	5.1 Draft report of the AoR reevaluation	Within 10 weeks of receipt of information from the EPA WACOR
	5.1 Final report of the AoR reevaluation	Within 10 business days of comments from the EPA WACOR
	5.2: Draft summary report	Within 20 business days of receipt of information from the EPA WACOR
	5.2: Final summary report	Within 10 business days of comments from the EPA WACOR
	5.3: Draft responses to select technical comments	Within 15 business days of receipt of topic area tables and comments from the EPA WACOR
	5.3: Final responsiveness summary	Within 5 business days of receipt of comments from the EPA WACOR
	5.4: Draft technical response	Within 5 business days of technical direction from the EPA WACOR
	5.4: Final technical response	Within 5 business days of receipt of comments from the EPA WACOR

V. MISCELLANEOUS

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and §

1194.22 Web-based intranet and internet information and applications. See:
<http://www.section508.gov/>

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

VI. TRAVEL

The contractor shall anticipate three trips in support of this WA (i.e., Tasks 1 through 5) over the duration of the performance period. The travel is anticipated to be to technical and scientific conferences or meetings focused on the topics of Carbon Capture and Storage, Drinking Water Protection, Area of Review delineation, Geologic Sequestration, geology/geophysics, and oil and gas industry practices. Travel will be directly related to the scope of this Work Assignment and support advancement of the work under Tasks 1 through 5 as well as the EPA's Mission to ensure protection of Underground Sources of Drinking Water, human health and the environment.

For estimation purposes, the Contractor shall anticipate three individual trips (one contractor employee) to any of the following cities: Pittsburgh, PA, Chicago, IL, Houston, TX or equivalent locations. It is anticipated that the duration of each trip will be between two and five days in length.

VII. MEETINGS, CONFERENCES, TRAINING EVENTS, AWARD CEREMONIES AND RECEPTIONS

All appropriate clearances and approvals required by Agency policy in support of any and all conference related activities and expenses, including support of meetings, conferences, training events, award ceremonies and receptions, including the form 5170 for all meetings costing more than \$20,000, shall be obtained by the EPA CL-COR as needed and provided to the Contracting Officer (CO). Work under conference related activities and expenses shall not occur until this approval is obtained and provided by the EPA CL-COR.

VIII. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, CL-COR and/or WACOR.

IX. PRINTING

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

X. QUALITY ASSURANCE AND SURVEILLANCE PLAN (QASP)

The contract QASP is applicable to this WA.

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 2-33				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2018 Base Option Period Number 2			Title of Work Assignment/SF Site Name Creating Resilient Water Utili				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW 5.1, 5.22, 2.3					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/01/2017 To 06/30/2018				
Comments: All tasks under this work assignment are authorized for immediate start but work shall not commence until 7/1/17.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> (Max 2) Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
09/01/2015 To 06/30/2018				0						
This Action:				4,300						
Total:				4,300						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Steve Fries <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-7089 FAX Number:				
Project Officer Name Nancy Parrotta <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-5260 FAX Number:				
Other Agency Official Name Lisa Mitchell-Flinn <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2852 FAX Number:				
Contracting Official Name Noelle Mills <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2171 FAX Number:				

PERFORMANCE WORK STATEMENT

Cadmus EP-C-15-022

Work Assignment No. 02-33

Period of Performance: 7/1/17-6/30/18

I. ADMINISTRATIVE:

A. Title: *Support for Creating Resilient Water Utilities Initiative: Tool Development and Technical Assistance*

B. Work Assignment Manager:

Steve Fries
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC:
4608-T)
Washington, DC 20460
202-564-7089
fries.steve@epa.gov

Alternate Work Assignment Manager:

Ashley Greene
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC:
4608-T)
Washington, DC 20460
202-566-1738
greene.ashley@epa.gov

C. Quality Assurance:

The tasks in this work assignment do not require environmental measurements. Consistent with the Agency's quality assurance (QA) requirements, the contractor does not need to supplement the Contract Level Quality Assurance Project Plan (QAPP) or to prepare a Project-Specific Quality Assurance project Plan (PQAPP). The contractor shall immediately notify the Project officer of any significant QA issues, and how they are being resolved addressed, in the monthly progress reports as specified below under Task 0. For deliverables utilizing geospatial datasets, quality assurance and metadata support should adhere to Agency approved Geospatial procedures and standards, see: <https://www.epa.gov/geospatial/geospatial-policies-and-standards>.

D. Background:

The U.S. Environmental Protection Agency (EPA or Agency) has established its Creating Resilient Water Utilities (CRWU) initiative to enable the water sector, which includes drinking water, wastewater, and storm water utilities, to identify, develop and implement infrastructure improvements and operational strategies that account for the risk associated with current and long-term weather patterns. CRWU recognizes that any comprehensive approach to utility resilience must include both adaptation and mitigation; it also seeks to engage a broad range of water sector stakeholders in developing a holistic approach under which these risks can be addressed at the utility level.

II. OBJECTIVE:

The contractor shall support the priorities and requirements of the Water Security Division (WSD) as related to the CRWU initiative activities. The work assignment (WA) supports EPA's efforts to pursue activities related to the resilience of the Nation's water sector

infrastructure to threats from various entities, including the associated challenge to the water sector's ability to fulfill its public health and environmental mission. Extreme weather events, sea-level rise, temperature changes, and shifting precipitation and runoff patterns, all have significant implications for sustainability of the Nation's water sector. The water sector will need to develop effective adaptation strategies to address potential impacts.

This work assignment supports the mission of WSD as described in the Water Security Strategy framework, which relates resources, activities, outputs, audience, short- and long-term outcomes to the WSD pillars of Prevention, Detection, Response, and Recovery. Additionally, this work assignment contributes to the commitments made in EPA's *Strategic Plan: 2011 to 2015* and EPA's *Homeland Security Strategy (2004)*. Under EPA's *Strategic Plan*, reference is made to Goal 2 (Clean and Safe Water), Objective 2.1 (Protecting Human Health), Sub-objective 2.1.1 (Water Safe to Drink), and to the Cross-Goal on homeland security. Under EPA's *Homeland Security Strategy*, reference is made to Objective 1 (Critical Infrastructure Protection).

The intended audience for this project is drinking water, wastewater, and stormwater utilities, as well as other parties that support these utilities as they begin to understand and consider challenges, adaptation options, and financing for these options to build resilience and increase overall effective utility management.

Partners in CRWU-related coordination efforts include but are not limited to the following:

- Drinking Water and Wastewater Associations and Stakeholders
- EPA program offices such as Office of Research and Development, and various other components of Office of Water (e.g., Office of Wastewater Management, Drinking Water Protection Division, and Office of Wetlands, Oceans, and Watersheds)
- Federal Agencies
- EPA Regional offices

This work will be completed commensurate with Sections 3.2 and 3.4 of the Contract Level PWS. The level of effort estimated for this work assignment is 4,300 hours.

III. TASK DETAIL:

The contractor shall perform the following tasks:

Task 0 - Work Plan Submission:

The contractor shall prepare a detailed work plan and budget for the accomplishment of the indicated tasks in accordance with the clause Work Assignments (EPAAR 1552.211-74). The work plan shall include a description of (a) proposed staff, (b) the number of hours and labor classifications proposed for each task, broken down to task level, to include both prime contractor and subcontractor labor, and (c) a list of deliverables, with due dates and schedule for deliverables.

In addition, the work plan shall specify that a Supplemental Project Specific Quality Assurance Project Plan (SQAPP) appending the Contract Level Quality Assurance Project Plan (QAPP) or a Project-Specific Quality Assurance Project Plan (PQAPP) is not required.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 1-33. This task also includes monthly progress and financial reports, which are to be submitted pursuant to Attachment 2 of the contract. Monthly financial reports must include a table with the invoice level of effort (LOE) and costs broken out by the tasks in this WA. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. The contractor shall immediately notify the Project Officer and EPA WA Contracting Officer's Representative (COR) if any changes to the collection and analysis of the data is needed and prepare a PQAPP accordingly.

The contractor shall immediately alert the EPA WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event (e.g., meeting or training). Those costs would include travel of prime and consultant personnel, planning and facilitation costs, audio/visual, and rental of venue costs. The EPA WACOR will prepare approval internal paperwork for the event and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Task 1 - Development of Web-based Resilience Support Products: The contractor shall develop a guided process Web tool for water utilities to pursue financial support for those infrastructure improvements identified as part of planning for building additional resilience. The potential projects that require support may be identified using other CRWU products, including the Resilient Strategies Guide and the CREAT (<https://creat.epa.gov/>). To the extent technically feasible, this financial tool will resemble these other online CRWU products and be accessible from the CRWU homepage (<http://www.epa.gov/crwu>) as an independent document or integrated directly into existing CRWU products, as appropriate.

The goal of this interactive financial tool will be to guide users in identifying and connecting eligible water infrastructure funding sources (e.g., State Revolving Funds, Water Infrastructure Finance and Innovation Act) to adaptation options for enhancing long-term infrastructure resilience. Further, this guided tool will provide additional assistance and resources for initiating the process to utilize these funding sources and provide successful utility funding examples, as available.

Upon receipt of Technical Direction, the contractor shall begin the development process, including the following high-level milestones:

- **Discovery:** confirm Web and technical specifications in draft documentation
- **Information Architecture:** provide proposed site map and wireframes
- **Design:** provide a static design based on the approved information architecture
- **Initial Build:** build templates in coordination with EPA
- **Application Content:** build out the site map and content on each page
- **Revision:** make changes based on EPA's review and user acceptance testing

- **Deploy:** update content and work with EPA to finalize website

As part of the Design and Revision steps above, the contractor shall, upon receipt of Technical Direction, support the convening of a stakeholder group that includes members of the water and financial sectors to review and advise on development goals and project outcomes. For planning purposes, assume the following:

- Three (3) webinars and one (1) in-person working group meeting
- Travel for two (2) contractors and two (2) subject matter experts from the participating sectors for in-person meeting
- Identify no-cost meeting space which will accommodate up to thirty (30) people
- The contractor shall provide facilitation support

The final version of the tool will be accessible on the EPA Website from multiple device types (e.g., PCs and tablets), operating systems (e.g., Mac OS, Microsoft Windows, iOS, Android) and browsers supported on these platforms (e.g., Internet Explorer, Firefox, Chrome, Safari). Browser version compatibility of final product will be part of requirements and based on current browser use statistics and known stakeholder and EPA preferences. This Web application will be publicly accessible with no need to provide or manage usernames and passwords. Developers will use responsive design to ensure that the dimensions of the screen render appropriately given the user's device.

Deliverables: The development and completion of a first version of the financial tool, including supporting documents for software and summaries from stakeholder meetings. See deliverable schedule below for details.

Task 2 - Support Direct Technical Assistance Activities with Utilities Using CREAT: In collaboration with EPA, the contractor shall provide risk assessment technical assistance to up to three (3) water sector utilities or communities. The contractor shall use CREAT to help participants understand how to use the tool and develop their risk assessment. EPA and the contractor will work together to identify the appropriate water sector utility that will receive this assistance. The exercise process requires the revision of agendas and presentation material templates used in multiple previous exercises and provision of logistical support for scheduling events, including an in-person visit to the utility/community. For planning purposes, the contractor should assume the following to each exercise: three (3) webinars with participants, as well as travel for two (2) contractors for one (1) two-day onsite visit.

Deliverable: Documentation of each exercise with compiled notes from all meetings and a summary report developed in collaboration with each participating utility/community.

Task 3 – Maintenance of Web-based Resilience Support Products: The contractor shall expand and improve the current portfolio of CRWU Web-based products accessible from the CRWU homepage (<http://www.epa.gov/crwu>). For planning purposes, the contractor shall, upon receipt of Technical Direction, conduct the following maintenance activities:

- Adaptation Case Study and Information Exchange (<http://www.epa.gov/crwu/explore-and-share-case-studies>)
 - a. Update map text content as directed by EPA (assume two updates)

- b. Update case studies available in application (assume five [5] briefs added quarterly)
 - c. Respond to user inquiries related to sharing their stories on the map and, as appropriate, work with stakeholder to develop new case study for the map (assume development of up to six [6] new case study briefs from stakeholders)
- Storm Surge Inundation Map (<http://www.epa.gov/crwu/coastal-storm-surge-scenarios-water-utilities>)
 - a. Update map text content as directed by EPA (assume two updates)
 - b. Update inundation layers when available from National Hurricane Center or Federal Emergency Management Agency partners (assume one update of replacing updated layers)
- CRWU Resilient Strategies Guide (being developed under WA 01-33 – assume one update including, but not limited to, the items listed below)
 - a. Add links to relevant case studies (from map above) as part of strategy definitions
 - b. Add unit costs of CREAT adaptive measures to the descriptions of strategies
 - c. Incorporate, where appropriate, EPA products (e.g., PDFs, videos) already posted on EPA’s website and YouTube site
 - d. Add link to new financial guide tool (when published) to continue the planning process following completion of the Worksheet in this Guide
- For all applications above, plus the financial guide tool to be developed under Task 1 of this WA
 - a. Ensure up-to-date materials within application (e.g., repair bad links) as requested
 - b. Address feedback from critical stakeholders and users to improve usability
 - c. Maintain applications in response to impacts of software and platform updates

Deliverables: Deployment of updates to each Web-based product. See deliverable schedule below for details.

Task 4 – Continued Utility Assistance in Coordination with EPA Regions: To continue to support active collaborations, initiated under WA 01-33, between EPA Regions, stakeholder partners in each Region, and the CRWU initiative, the contractor shall, upon receipt of Technical Direction:

- Complete the process of documenting workshops hosted by EPA Regions for water utilities seeking support in building additional resilience. Documentation of no more than two Workshops, initiated under WA 01-33, will be required during period of performance with no anticipated travel.
- Complete the process of conducting and documenting direct technical assistance provided to water utilities using CREAT under WA 01-33.
- Continue to support collaboration with stakeholder partners that are pursuing actions derived from their work with CRWU and EPA Regions conducted under WA 01-33

Deliverable: Documentation of each meeting developed in collaboration with each participating EPA Region and stakeholder partner.

Task 5 – Monitoring CRWU Initiative Performance (Metrics): To continue to support the CRWU initiative, the contractor shall, upon receipt of Technical Direction:

- Provide document assistance and scientific / technical support to facilitate and enhance EPA's CRWU efforts. Specific activities will be assigned through written technical direction by the EPA WACOR in response to the EPA's support needs.
- Support generic metrics tracking. While communication and coordination with stakeholders is a part of every task, some specific actions such as product releases, publications, conference participation and briefings may necessitate updates to metrics.
- Support EPA's CRWU in coordination with our international counterparts in Australia, UK, Africa, Europe and Canada.
- Support EPA's ability to invite and provide travel support to up to five (5) previous CREAT assessment participants as utility SMEs to advocate / speak on behalf of CRWU and CREAT at conferences.

Deliverable: See deliverable schedule below for details.

IV. SCHEDULE OF DELIVERABLES:

Specific deliverables, by Task, are detailed in the table below. All work will be determined by technical direction.

This work requires experience in the development and manipulation of basic geospatial datasets, map layer, geodatabases and ESRI map application templates. It is necessary for the contractor to have familiarity with EPA's Geoplatform, or a similar platform at another federal agency or department.

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0 - Workplan Submission		
	Workplan and budget	According to contract
	Monthly progress reports	Monthly
Task 1 - Development of Web-based Resilience Support Products		
	Information architecture document	To be determined by technical direction; an exact date cannot be determined prior to receiving stakeholder or management feedback
	Design document	
	Support for utility SMEs (up to 2 trips)	
	Stakeholder meeting document support and summary notes	
	Draft product for EPA review	
	Revised documentation	
	Final product ready for posting to EPA's website	

Task 2 – Support Direct Technical Assistance Activities with Utilities Using CREAT	
Documentation (summary notes) from each exercise	May 1, 2018
Summary report from each exercise	
Task 3 – Maintenance of Web-based Resilience Support Products	
Updates to Adaptation Case Study and Information Exchange	September 29, 2017 December 29, 2017 March 30, 2018 June 29, 2018
Update to Storm Surge Inundation Map	To be determined by technical direction; an exact date cannot be determined prior to receiving stakeholder or management feedback
Maintenance of CRWU Web-based applications (ensure up-to-date materials; address feedback to improve usability; response to impacts of software and platform updates)	
Update to CRWU Resilient Strategies Guide	April 16, 2018
Task 4 – Continued Utility Assistance in Coordination with EPA Regions	
Documentation (summary notes) from each collaborative activity with EPA Region	To be determined by technical direction; an exact date cannot be determined prior to receiving stakeholder or management feedback
Documentation (summary notes) from each collaborative activity with partner stakeholder	
Task 5 – Monitoring CRWU Initiative Performance (Metrics)	
Document assistance and scientific / technical support	To be determined by technical direction; an exact date cannot be determined prior to receiving stakeholder or management feedback
Support international coordination (attend up to 6 webinars)	
Support for utility SMEs (up to 5 trips)	
Quarterly metrics updates	September 29, 2017 December 29, 2017 March 30, 2018 June 29, 2018

V. MISCELLANEOUS:

Software Application Files and Accessibility:

Software application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and §

1194.22 Web-based intranet and internet information and applications. See:
<http://www.section508.gov/>

Regarding FITARA, online publications of maps will leverage EPA's GeoPlatform technical architecture, hardware and software, to the fullest extent possible for public search and discovery. Quality assurance and metadata support should adhere to Agency approved Geospatial procedures and standards, see: <https://www.epa.gov/geospatial/geospatial-policies-and-standards>. All geospatial metadata will, as required by OMB, be published in EPA's Environmental Data Gateway which serves Data.gov, see: <https://edg.epa.gov/metadata/catalog/main/home.page>

Preferred text format:	MS Word 8.0 or higher (Office 2007 or higher)
Preferred presentation format:	Power Point, Office 2007 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0
Preferred technology:	ESRI ArcGIS Desktop 10.4 or higher

The EPA WACOR shall identify which of delivered products will require 508 compliance.

VI. TRAVEL

The contractor shall anticipate eight (8) contractor trips and seven (7) SME trips in support of this WA over the duration of the performance period. Travel will be directly related to the scope of this Work Assignment and support advancement of the work under Tasks 1, 2 and 5, as well as the EPA's Mission to ensure protection of human health and the environment.

VII. MEETINGS, CONFERENCES, TRAINING EVENTS, AWARD CEREMONIES AND RECEPTIONS

All appropriate clearances and approvals required by Agency policy in support of any and all conference related activities and expenses, including support of meetings, conferences, training events, award ceremonies and receptions, including the form 5170 for all meetings costing more than \$20,000, shall be obtained by the EPA CL-COR as needed and provided to the Contracting Officer (CO). Work under conference related activities and expenses shall not occur until this approval is obtained and provided by the EPA CL-COR.

VIII. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, CL-COR and/or WACOR.

IX. PRINTING

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

X. Technical Direction

The Contract level COR or an authorized individual is permitted to provide technical direction. Technical direction must be within the statement of work of the contract and includes: (1) Direction to the contractor which assists the contractor in accomplishing the Statement of Work, (2) Comments on and approval of reports or other deliverables. Technical direction will be issued in writing or confirmed in writing within five (5) calendar days after verbal issuance. One copy of the technical direction memorandum will be forwarded to the Contracting Officer and the Contract Level Contracting Officer Representative.

XI. QUALITY ASSURANCE SURVEILLANCE PLAN:

All task(s) identified in the performance work statement above are subject to review and approval by the EPA WACOR based on the general guidelines of the contract quality assurance surveillance plan regarding: Programmatic, cost control, timeliness/deliverables, and document development standards. Additional project specific quality assurance surveillance plan requirements are identified below.

<u>Performance Requirements</u>	<u>Performance Standards</u>	<u>Surveillance Methods</u>
Performance Standards are applicable to all PWS requirements and will be utilized to determine eligibility for Award Term Options.		
Programmatic Standard: Outputs are based on best available information and resources; Documentation of sources used, not used, and limitations of available data; Description of methodological choices made both conceptually and in data selection. Assumptions utilized in environmental planning and applying engineering principles are clearly documented.	No more than 15% of deliverables and work products for any WA furnished to EPA for review by CL COR/WACOR and QAO shall require revisions to meet the requirements of the QMP and QAPP for the WA.	EPA will review all products for conformance with the requirements of the SDWA Amendments, Clean Water Act and other related mandates, including Small Business Regulatory Enforcement Fairness Act 1996 (SBREFA) and Unfunded Mandates Reform Act of 1995 (UMRA).
Cost Control Standard: Implementation of cost control system to monitor and track project status, that indicate level of budget utilized and forecast remaining budget needs to complete project. The contractor shall notify project COR immediately in cases where	The contractor shall manage costs to the level of the approved ceiling on each individual WA. The contractor shall notify the EPA WACOR, CL COR, and CO when	The EPA CL COR will routinely discuss the work progress and contract level and individual task order expenditures with the Project Manager. The WACOR will maintain regular contact with the Contractor's designated task

issues impact project cost are identified. The contractor shall provide a risk management strategy that identifies specific project element(s) that adversely impact proposed work plan. The risk management strategy shall present impacts if course is continued without mitigation, and solutions to resolve the issue(s). The risk Management Strategy shall consider process, schedule, prioritization, and cost benefit analysis.	75% of the approved funding ceiling for any particular WA is reached. If a contractor fails to manage and control cost, any resultant overrun cannot exceed the total contract obligation for that period.	order manager/project manager to discuss task order progress and expenditures and will review and verify expenditures and technical progress before invoice payments are authorized.
Schedule Standard: Services and deliverables shall be in accordance with schedules stated in each task order. Unless amended or modified by an approved EPA action, a deliverable that is received 7-days past the due date, will be considered unsatisfactory performance.	No more than 15% of all deliverables per WA shall be submitted more than 3 work days past the due date.	EPA will closely monitor task milestone and deliverable schedules and review the Contract Monthly Progress Reports and any special reporting requirements to compare actual delivery dates to those approved in task orders. EPA will notify the contractor when it becomes apparent that an established schedule will not be met.
Document Development: Documents shall be technically and factually accurate, and suited to the intended audience. The draft version of a document shall meet a standard of no more than 2 typographical and/or grammatical errors per page and require no more than two editorial revisions. Final documents must meet a standard of no more than 2 typographical and/or grammatical errors per document.	No more than 15% of deliverables and work products for any WA furnished to EPA for review by CL COR/WACOR and QAO shall require revisions to meet the requirements of the QMP and QAPP for the WA.	The WAC will review drafts to assess technical accuracy and editorial quality. The WACOR will identify all inaccuracies and needed edits and corrections to the Contractor in the initial review of draft documents

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 2-33				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2018 Base Option Period Number 2			Title of Work Assignment/SF Site Name Creating Resilient Water Utili				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW 5.1, 5.22, 2.3					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/01/2017 To 06/30/2018				
Comments: The purpose of this amendment 1 to Cadmus (EP-C-15-022) WA 2-33 is to add a new task 6 - Conduct Training Workshop for Water Sector Partners. NTE Ceilings remain in place.										
<input type="checkbox"/> Superfund						Accounting and Appropriations Data				<input checked="" type="checkbox"/> Non-Superfund
Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
SFO <input type="checkbox"/> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE: 4,300						
09/01/2015 To 06/30/2018										
This Action:				140						
Total:				4,440						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee			LOE:			
Cumulative Approved:				Cost/Fee			LOE:			
Work Assignment Manager Name Steve Fries <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code: Phone Number: 202-564-7089 FAX Number:			
Project Officer Name Nancy Parrotta <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code: Phone Number: 202-564-5260 FAX Number:			
Other Agency Official Name Lisa Mitchell-Flinn <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code: Phone Number: 513-487-2852 FAX Number:			
Contracting Official Name Noelle Mills <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code: Phone Number: 513-487-2171 FAX Number:			

PERFORMANCE WORK STATEMENT
Cadmus EP-C-15-022
Work Assignment No. 02-33 Amendment 1
Period of Performance: 7/1/17-6/30/18

I. ADMINISTRATIVE:

A. Title: *Support for Creating Resilient Water Utilities Initiative: Tool Development and Technical Assistance*

B. Work Assignment Manager:

Steve Fries
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC:
4608-T)
Washington, DC 20460
202-564-7089
fries.steve@epa.gov

Alternate Work Assignment Manager:

Ashley Greene
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC:
4608-T)
Washington, DC 20460
202-566-1738
greene.ashley@epa.gov

C. Quality Assurance:

The tasks in the previous performance work statement for this work assignment did not require environmental measurements or use of secondary data. Task 6, added as part of this amendment also will not require the use of environmental measurements or secondary data. Consistent with the Agency's quality assurance (QA) requirements, the contractor does not need to supplement the Contract Level Quality Assurance Project Plan (QAPP) or to prepare a Project-Specific Quality Assurance project Plan (PQAPP). The contractor shall immediately notify the Project officer of any significant QA issues, and how they are being resolved addressed, in the monthly progress reports as specified below under Task 0. For deliverables utilizing geospatial datasets, quality assurance and metadata support should adhere to Agency approved Geospatial procedures and standards, see: <https://www.epa.gov/geospatial/geospatial-policies-and-standards>.

D. Background:

The U.S. Environmental Protection Agency (EPA or Agency) has established its Creating Resilient Water Utilities (CRWU) initiative to enable the water sector, which includes drinking water, wastewater, and storm water utilities, to identify, develop and implement infrastructure improvements and operational strategies that account for the risk associated with current and long-term weather patterns. CRWU recognizes that any comprehensive approach to utility resilience must include both adaptation and mitigation; it also seeks to engage a broad range of water sector stakeholders in developing a holistic approach under which these risks can be addressed at the utility level.

II. OBJECTIVE:

The contractor shall support the priorities and requirements of the Water Security Division (WSD) as related to the CRWU initiative activities. The work assignment (WA) supports EPA's efforts to pursue activities related to the resilience of the Nation's water sector infrastructure to threats from various entities, including the associated challenge to the water sector's ability to fulfill its public health and environmental mission. Extreme weather events, sea-level rise, temperature changes, and shifting precipitation and runoff patterns, all have significant implications for sustainability of the Nation's water sector. The water sector will need to develop effective adaptation strategies to address potential impacts.

This work assignment supports the mission of WSD as described in the Water Security Strategy framework, which relates resources, activities, outputs, audience, short- and long-term outcomes to the WSD pillars of Prevention, Detection, Response, and Recovery. Additionally, this work assignment contributes to the commitments made in EPA's *Strategic Plan: 2011 to 2015* and EPA's *Homeland Security Strategy (2004)*. Under EPA's *Strategic Plan*, reference is made to Goal 2 (Clean and Safe Water), Objective 2.1 (Protecting Human Health), Sub-objective 2.1.1 (Water Safe to Drink), and to the Cross-Goal on homeland security. Under EPA's *Homeland Security Strategy*, reference is made to Objective 1 (Critical Infrastructure Protection).

The intended audience for this project is drinking water, wastewater, and stormwater utilities, as well as other parties that support these utilities as they begin to understand and consider challenges, adaptation options, and financing for these options to build resilience and increase overall effective utility management.

Partners in CRWU-related coordination efforts include but are not limited to the following:

- Drinking Water and Wastewater Associations and Stakeholders
- EPA program offices such as Office of Research and Development, and various other components of Office of Water (e.g., Office of Wastewater Management, Drinking Water Protection Division, and Office of Wetlands, Oceans, and Watersheds)
- Federal Agencies
- EPA Regional offices

This work will be completed commensurate with Sections 3.2 and 3.4 of the Contract Level PWS. The level of effort estimated for this work assignment amendment is 140 hours.

III. TASK DETAIL:

The contractor shall perform the following tasks:

Task 0 - Work Plan Submission: The contractor shall prepare a detailed work plan and budget for the accomplishment of the indicated additional task (Task 6) in accordance with the clause Work Assignments (EPAAR 1552.211-74). The work plan shall include a description of (a) proposed staff, (b) the number of hours and labor classifications proposed for each task,

broken down to task level, to include both prime contractor and subcontractor labor, and (c) a list of deliverables, with due dates and schedule for deliverables.

In addition, the work plan shall specify that a Supplemental Project Specific Quality Assurance Project Plan (SQAPP) appending the Contract Level Quality Assurance Project Plan (QAPP) or a Project-Specific Quality Assurance Project Plan (PQAPP) is not required.

This task also includes monthly progress and financial reports, which are to be submitted pursuant to Attachment 2 of the contract. Monthly financial reports must include a table with the invoice level of effort (LOE) and costs broken out by the tasks in this WA. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. The contractor shall immediately notify the Project Officer and EPA WA Contracting Officer's Representative (COR) if any changes to the collection and analysis of the data is needed and prepare a PQAPP accordingly.

The contractor shall immediately alert the EPA WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event (e.g., meeting or training). Those costs would include travel of prime and consultant personnel, planning and facilitation costs, audio/visual, and rental of venue costs. The EPA WACOR will prepare approval internal paperwork for the event and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Task 1 - Development of Web-based Resilience Support Products: No change to activities in this amendment. The contractor shall develop a guided process Web tool for water utilities to pursue financial support for those infrastructure improvements identified as part of planning for building additional resilience. The potential projects that require support may be identified using other CRWU products, including the Resilient Strategies Guide and the CREAT (<https://creat.epa.gov/>). To the extent technically feasible, this financial tool will resemble these other online CRWU products and be accessible from the CRWU homepage (<http://www.epa.gov/crwu>) as an independent document or integrated directly into existing CRWU products, as appropriate.

The goal of this interactive financial tool will be to guide users in identifying and connecting eligible water infrastructure funding sources (e.g., State Revolving Funds, Water Infrastructure Finance and Innovation Act) to adaptation options for enhancing long-term infrastructure resilience. Further, this guided tool will provide additional assistance and resources for initiating the process to utilize these funding sources and provide successful utility funding examples, as available.

Upon receipt of Technical Direction, the contractor shall begin the development process, including the following high-level milestones:

- **Discovery:** confirm Web and technical specifications in draft documentation
- **Information Architecture:** provide proposed site map and wireframes
- **Design:** provide a static design based on the approved information architecture

- **Initial Build:** build templates in coordination with EPA
- **Application Content:** build out the site map and content on each page
- **Revision:** make changes based on EPA's review and user acceptance testing
- **Deploy:** update content and work with EPA to finalize website

As part of the Design and Revision steps above, the contractor shall, upon receipt of Technical Direction, support the convening of a stakeholder group that includes members of the water and financial sectors to review and advise on development goals and project outcomes. For planning purposes, assume the following:

- Three (3) webinars and one (1) in-person working group meeting
- Travel for two (2) contractors and two (2) subject matter experts from the participating sectors for in-person meeting
- Identify no-cost meeting space which will accommodate up to thirty (30) people
- The contractor shall provide facilitation support

The final version of the tool will be accessible on the EPA Website from multiple device types (e.g., PCs and tablets), operating systems (e.g., Mac OS, Microsoft Windows, iOS, Android) and browsers supported on these platforms (e.g., Internet Explorer, Firefox, Chrome, Safari). Browser version compatibility of final product will be part of requirements and based on current browser use statistics and known stakeholder and EPA preferences. This Web application will be publicly accessible with no need to provide or manage usernames and passwords. Developers will use responsive design to ensure that the dimensions of the screen render appropriately given the user's device.

Deliverables: The development and completion of a first version of the financial tool, including supporting documents for software and summaries from stakeholder meetings. See deliverable schedule below for details.

Task 2 - Support Direct Technical Assistance Activities with Utilities Using CREAT: No change to activities in this amendment. In collaboration with EPA, the contractor shall provide risk assessment technical assistance to up to three (3) water sector utilities or communities. The contractor shall use CREAT to help participants understand how to use the tool and develop their risk assessment. EPA and the contractor will work together to identify the appropriate water sector utility that will receive this assistance. The exercise process requires the revision of agendas and presentation material templates used in multiple previous exercises and provision of logistical support for scheduling events, including an in-person visit to the utility/community. For planning purposes, the contractor should assume the following to each exercise: three (3) webinars with participants, as well as travel for two (2) contractors for one (1) two-day onsite visit.

Deliverable: Documentation of each exercise with compiled notes from all meetings and a summary report developed in collaboration with each participating utility/community.

Task 3 – Maintenance of Web-based Resilience Support Products: No change to activities in this amendment. The contractor shall expand and improve the current portfolio of CRWU Web-based products accessible from the CRWU homepage (<http://www.epa.gov/crwu>). For

planning purposes, the contractor shall, upon receipt of Technical Direction, conduct the following maintenance activities:

- Adaptation Case Study and Information Exchange (<http://www.epa.gov/crwu/explore-and-share-case-studies>)
 - a. Update map text content as directed by EPA (assume two updates)
 - b. Update case studies available in application (assume five [5] briefs added quarterly)
 - c. Respond to user inquiries related to sharing their stories on the map and, as appropriate, work with stakeholder to develop new case study for the map (assume development of up to six [6] new case study briefs from stakeholders)
- Storm Surge Inundation Map (<http://www.epa.gov/crwu/coastal-storm-surge-scenarios-water-utilities>)
 - a. Update map text content as directed by EPA (assume two updates)
 - b. Update inundation layers when available from National Hurricane Center or Federal Emergency Management Agency partners (assume one update of replacing updated layers)
- CRWU Resilient Strategies Guide (being developed under WA 01-33 – assume one update including, but not limited to, the items listed below)
 - a. Add links to relevant case studies (from map above) as part of strategy definitions
 - b. Add unit costs of CREAT adaptive measures to the descriptions of strategies
 - c. Incorporate, where appropriate, EPA products (e.g., PDFs, videos) already posted on EPA’s website and YouTube site
 - d. Add link to new financial guide tool (when published) to continue the planning process following completion of the Worksheet in this Guide
- For all applications above, plus the financial guide tool to be developed under Task 1 of this WA
 - a. Ensure up-to-date materials within application (e.g., repair bad links) as requested
 - b. Address feedback from critical stakeholders and users to improve usability
 - c. Maintain applications in response to impacts of software and platform updates

Deliverables: Deployment of updates to each Web-based product. See deliverable schedule below for details.

Task 4 – Continued Utility Assistance in Coordination with EPA Regions: No change to activities in this amendment. To continue to support active collaborations, initiated under WA 01-33, between EPA Regions, stakeholder partners in each Region, and the CRWU initiative, the contractor shall, upon receipt of Technical Direction:

- Complete the process of documenting workshops hosted by EPA Regions for water utilities seeking support in building additional resilience. Documentation of no more than two Workshops, initiated under WA 01-33, will be required during period of performance with no anticipated travel.
- Complete the process of conducting and documenting direct technical assistance provided to water utilities using CREAT under WA 01-33.
- Continue to support collaboration with stakeholder partners that are pursuing actions derived from their work with CRWU and EPA Regions conducted under WA 01-33

Deliverable: Documentation of each meeting developed in collaboration with each participating EPA Region and stakeholder partner.

Task 5 – Monitoring CRWU Initiative Performance (Metrics): No change to activities in this amendment. To continue to support the CRWU initiative, the contractor shall, upon receipt of Technical Direction:

- Provide document assistance and scientific / technical support to facilitate and enhance EPA’s CRWU efforts. Specific activities will be assigned through written technical direction by the EPA WACOR in response to the EPA’s support needs.
- Support generic metrics tracking. While communication and coordination with stakeholders is a part of every task, some specific actions such as product releases, publications, conference participation and briefings may necessitate updates to metrics.
- Support EPA’s CRWU in coordination with our international counterparts in Australia, UK, Africa, Europe and Canada.
- Support EPA’s ability to invite and provide travel support to up to five (5) previous CREAT assessment participants as utility SMEs to advocate / speak on behalf of CRWU and CREAT at conferences.

Deliverable: See deliverable schedule below for details.

Task 6 – Conduct Training Workshop for Water Sector Partners: The contractor shall provide necessary support for execution of two-day workshop developed by EPA in consultation with experts (supported under EPA-C-15-012). For planning purposes, assume the following:

- Workshop will be held September 26-27, 2017 in Boulder, Colorado, at the National Center for Atmospheric Research. Up to fifty (50) participants will be trained at the workshop. Venue costs will not be required under this WA.
- Hotel room block for attendees, event registration and management of participants will be provided by EPA. Logistics support at the workshop will not be required.
- Workshop materials have been developed by subject-matter experts and EPA will provide these materials, including agenda and presentations, to the contractor prior to the workshop.
- The contractor shall provide facilitation services at this workshop, including support for one (1) facilitator to guide discussions, keep sessions on schedule and foster dialogue between participants during exercise sessions. Support should include local or long-distance travel support for the facilitator.
- The contractor shall provide support for three (3) expert instructors to present at the workshop, including local or long-distance travel support for each instructor.

Deliverables: This task should provide the necessary support for facilitation and instruction at planned stakeholder workshop, utilizing current partners and collaborators, as appropriate. Any incidental materials derived from stakeholder workshop, like sign in sheets or flip cart notes, should be provided to EPA following the event.

IV. SCHEDULE OF DELIVERABLES:

Specific deliverables, by Task, are detailed in the table below. All work will be determined by

technical direction.

This work requires experience in the development and manipulation of basic geospatial datasets, map layer, geodatabases and ESRI map application templates. It is necessary for the contractor to have familiarity with EPA's Geoplatform, or a similar platform at another federal agency or department.

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0 - Workplan Submission		
Workplan and budget		According to contract
Monthly progress reports		Monthly
Workplan and budget for Amendment 1		According to contract
Task 1 - Development of Web-based Resilience Support Products		
Information architecture document		To be determined by technical direction; an exact date cannot be determined prior to receiving stakeholder or management feedback
Design document		
Support for utility SMEs (up to 2 trips)		
Stakeholder meeting document support and summary notes		
Draft product for EPA review		
Revised documentation		
Final product ready for posting to EPA’s website		
Task 2 - Support Direct Technical Assistance Activities with Utilities Using CREAT		
Documentation (summary notes) from each exercise		May 1, 2018
Summary report from each exercise		
Task 3 – Maintenance of Web-based Resilience Support Products		
Updates to Adaptation Case Study and Information Exchange		September 29, 2017 December 29, 2017 March 30, 2018 June 29, 2018
Update to Storm Surge Inundation Map		To be determined by technical direction; an exact date cannot be determined prior to receiving stakeholder or management feedback
Maintenance of CRWU Web-based applications (ensure up-to-date materials; address feedback to improve usability; response to impacts of software and platform updates)		
Update to CRWU Resilient Strategies Guide		April 16, 2018

Task 4 – Continued Utility Assistance in Coordination with EPA Regions	
Documentation (summary notes) from each collaborative activity with EPA Region	To be determined by technical direction; an exact date cannot be determined prior to receiving stakeholder or management feedback
Documentation (summary notes) from each collaborative activity with partner stakeholder	
Task 5 – Monitoring CRWU Initiative Performance (Metrics)	
Document assistance and scientific / technical support	To be determined by technical direction; an exact date cannot be determined prior to receiving stakeholder or management feedback
Support international coordination (attend up to 6 webinars)	
Support for utility SMEs (up to 5 trips)	
Quarterly metrics updates	September 29, 2017 December 29, 2017 March 30, 2018 June 29, 2018
Task 6 – Conduct Training Workshop for Water Sector Partners	
Support for facilitation and instruction at stakeholder workshop	To be determined by technical direction; event scheduled to be held September 26-27, 2017
Incidental materials derived from stakeholder workshop	

V. MISCELLANEOUS:

Software Application Files and Accessibility:

Software application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: <http://www.section508.gov/>

Regarding FITARA, online publications of maps will leverage EPA's GeoPlatform technical architecture, hardware and software, to the fullest extent possible for public search and discovery. Quality assurance and metadata support should adhere to Agency approved Geospatial procedures and standards, see: <https://www.epa.gov/geospatial/geospatial-policies-and-standards>. All geospatial metadata will, as required by OMB, be published in EPA's Environmental Data Gateway which serves Data.gov, see: <https://edg.epa.gov/metadata/catalog/main/home.page>

Preferred text format: MS Word 8.0 or higher (Office 2007 or higher)
Preferred presentation format: Power Point, Office 2007 or higher

Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0
Preferred technology:	ESRI ArcGIS Desktop 10.4 or higher

The EPA WACOR shall identify which of delivered products will require 508 compliance.

VI. TRAVEL

The contractor shall anticipate eight (8) contractor trips and seven (7) SME trips in support of this WA over the duration of the performance period. Travel will be directly related to the scope of this Work Assignment and support advancement of the work under Tasks 1, 2 and 5, as well as the EPA's Mission to ensure protection of human health and the environment.

VII. MEETINGS, CONFERENCES, TRAINING EVENTS, AWARD CEREMONIES AND RECEPTIONS

All appropriate clearances and approvals required by Agency policy in support of any and all conference related activities and expenses, including support of meetings, conferences, training events, award ceremonies and receptions, including the form 5170 for all meetings costing more than \$20,000, shall be obtained by the EPA CL-COR as needed and provided to the Contracting Officer (CO). Work under conference related activities and expenses shall not occur until this approval is obtained and provided by the EPA CL-COR.

VIII. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, CL-COR and/or WACOR.

IX. PRINTING

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

X. Technical Direction

The Contract level COR or an authorized individual is permitted to provide technical direction. Technical direction must be within the statement of work of the contract and includes: (1) Direction to the contractor which assists the contractor in accomplishing the Statement of Work, (2) Comments on and approval of reports or other deliverables. Technical direction will be issued in writing or confirmed in writing within five (5) calendar days after verbal issuance. One copy of the technical direction memorandum will be forwarded to the Contracting Officer and the Contract Level Contracting Officer Representative.

XI. QUALITY ASSURANCE SURVEILLANCE PLAN:

All task(s) identified in the performance work statement above are subject to review and approval by the EPA WACOR based on the general guidelines of the contract quality assurance surveillance plan regarding: Programmatic, cost control, timeliness/deliverables, and document development standards. Additional project specific quality assurance surveillance plan requirements are identified below.

Performance Requirements	Performance Standards	Surveillance Methods
Performance Standards are applicable to all PWS requirements and will be utilized to determine eligibility for Award Term Options.		
Programmatic Standard: Outputs are based on best available information and resources; Documentation of sources used, not used, and limitations of available data; Description of methodological choices made both conceptually and in data selection. Assumptions utilized in environmental planning and applying engineering principles are clearly documented.	No more than 15% of deliverables and work products for any WA furnished to EPA for review by CL COR/WACOR and QAO shall require revisions to meet the requirements of the QMP and QAPP for the WA.	EPA will review all products for conformance with the requirements of the SDWA Amendments, Clean Water Act and other related mandates, including Small Business Regulatory Enforcement Fairness Act 1996 (SBREFA) and Unfunded Mandates Reform Act of 1995 (UMRA).
Cost Control Standard: Implementation of cost control system to monitor and track project status, that indicate level of budget utilized and forecast remaining budget needs to complete project. The contractor shall notify project COR immediately in cases where issues impact project cost are identified. The contractor shall provide a risk management strategy that identifies specific project element(s) that adversely impact proposed work plan. The risk management strategy shall present impacts if course is continued without mitigation, and solutions to resolve the issue(s). The risk Management Strategy shall consider process, schedule, prioritization, and cost benefit analysis.	The contractor shall manage costs to the level of the approved ceiling on each individual WA. The contractor shall notify the EPA WACOR, CL COR, and CO when 75% of the approved funding ceiling for any particular WA is reached. If a contractor fails to manage and control cost, any resultant overrun cannot exceed the total contract obligation for that period.	The EPA CL COR will routinely discuss the work progress and contract level and individual task order expenditures with the Project Manager. The WACOR will maintain regular contact with the Contractor's designated task order manager/project manager to discuss task order progress and expenditures and will review and verify expenditures and technical progress before invoice payments are authorized.

<p>Schedule Standard: Services and deliverables shall be in accordance with schedules stated in each task order. Unless amended or modified by an approved EPA action, a deliverable that is received 7-days past the due date, will be considered unsatisfactory performance.</p>	<p>No more than 15% of all deliverables per WA shall be submitted more than 3 work days past the due date.</p>	<p>EPA will closely monitor task milestone and deliverable schedules and review the Contract Monthly Progress Reports and any special reporting requirements to compare actual delivery dates to those approved in task orders. EPA will notify the contractor when it becomes apparent that an established schedule will not be met.</p>
<p>Document Development: Documents shall be technically and factually accurate, and suited to the intended audience. The draft version of a document shall meet a standard of no more than 2 typographical and/or grammatical errors per page and require no more than two editorial revisions. Final documents must meet a standard of no more than 2 typographical and/or grammatical errors per document.</p>	<p>No more than 15% of deliverables and work products for any WA furnished to EPA for review by CL COR/WACOR and QAO shall require revisions to meet the requirements of the QMP and QAPP for the WA.</p>	<p>The WAC will review drafts to assess technical accuracy and editorial quality. The WACOR will identify all inaccuracies and needed edits and corrections to the Contractor in the initial review of draft documents</p>

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 2-33				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2019			Title of Work Assignment/SF Site Name				
			Base Option Period Number 2			Creating Resilient Water Utili				
Contractor Cadmus Group LLC, The					Specify Section and paragraph of Contract SOW 5.1, 5.22, 2.3					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance From 07/01/2017 To 06/30/2018					
Comments: The purpose of Amendment 2 to WA 2-33 is to increase the total WA NTE LOE to 1900 hours and the total WA NTE ceiling to \$260,000. Within these limits, Task 5 shall not exceed 300 hours and \$35,000.										
<input type="checkbox"/> Superfund					Accounting and Appropriations Data					<input checked="" type="checkbox"/> Non-Superfund
SFO <input type="checkbox"/> (Max 2) Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:			LOE:					
09/01/2015 To 06/30/2019										
This Action:										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:					Cost/Fee			LOE:		
Cumulative Approved:					Cost/Fee			LOE:		
Work Assignment Manager Name Steve Fries							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 202-564-7089			
							FAX Number:			
Project Officer Name Nancy Parrotta							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 202-564-5260			
							FAX Number:			
Other Agency Official Name Lisa Mitchell-Flinn							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 513-487-2852			
							FAX Number:			
Contracting Official Name Harold D. Hincks							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 513-487-2146			
							FAX Number:			

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 2-33				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000003				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2019			Title of Work Assignment/SF Site Name				
			Base Option Period Number 2			Creating Resilient Water Utili				
Contractor Cadmus Group LLC, The					Specify Section and paragraph of Contract SOW 5.1, 5.22, 2.3					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance From 07/01/2017 To 06/30/2018					
Comments: The purpose of this amendment 3 to Cadmus (EP-C-15-022) WA 2-33 is to raise the CPFF NTE ceiling to \$305,000 and 2,300 hours. Within these limits, the Task 5 ceiling shall remain the same at 300 hours and \$35,000.										
<input type="checkbox"/> Superfund					Accounting and Appropriations Data					<input checked="" type="checkbox"/> Non-Superfund
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO <input type="checkbox"/> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:			LOE:					
09/01/2015 To 06/30/2019										
This Action:										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:					Cost/Fee			LOE:		
Cumulative Approved:					Cost/Fee			LOE:		
Work Assignment Manager Name Steve Fries							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 202-564-7089			
							FAX Number:			
Project Officer Name Nancy Parrotta							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 202-564-5260			
							FAX Number:			
Other Agency Official Name Lisa Mitchell-Flinn							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 513-487-2852			
							FAX Number:			
Contracting Official Name Angela Lower							Branch/Mail Code:			
_____ (Signature) (Date)							Phone Number: 513-487-2036			
							FAX Number:			

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 2-33				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000004				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2019 Base Option Period Number 2			Title of Work Assignment/SF Site Name Creating Resilient Water Utili				
Contractor Cadmus Group LLC, The					Specify Section and paragraph of Contract SOW 5.1, 5.22, 2.3					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/01/2017 To 06/30/2018				
Comments: The purpose of this amendment 4 to Cadmus (EP-C-15-022) WA 2-33 is to raise the CPFF NTE ceiling of Task 5 to 420 hours and \$35,000 within the limits of the overall work assignment ceiling of \$305,000 and 2,300 hours.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 4,411				
09/01/2015 To 06/30/2019										
This Action:						0				
Total:						4,411				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Steve Fries						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 202-564-7089				
						FAX Number:				
Project Officer Name Nancy Parrotta						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 202-564-5260				
						FAX Number:				
Other Agency Official Name Lisa Mitchell-Flinn						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 513-487-2852				
						FAX Number:				
Contracting Official Name Angela Lower						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 513-487-2036				
						FAX Number:				

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 2-34				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2018 Base Option Period Number 2			Title of Work Assignment/SF Site Name Decontamination Products				
Contractor CADMUS GROUP, INC., THE						Specify Section and paragraph of Contract SOW 2.3.2, 2.4.2, 2.4.6, 3.4.6, 5.1, 5.2, 6.1.3, 6.1.6				
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/01/2017 To 06/30/2018				
Comments: Additional PWS sections: 7.1.1, 7.2.1, 7.2.3, 7.2.6, 7.6, 9.1, 9.7. All tasks under this work assignment are authorized for immediate start but work shall not commence until 7/1/17.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> (Max 2) Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
09/01/2015 To 06/30/2018				0						
This Action:				3,625						
Total:				3,625						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Marissa Lynch						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 202-564-2761				
						FAX Number:				
Project Officer Name Nancy Parrotta						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 202-564-5260				
						FAX Number:				
Other Agency Official Name Lisa Mitchell-Flinn						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 513-487-2852				
						FAX Number:				
Contracting Official Name Noelle Mills						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 513-487-2171				
						FAX Number:				

PERFORMANCE WORK STATEMENT

Cadmus EP-C-15-022

Work Assignment No. 2-34

Performance Period: 7/01/17-6/30/18

Title: Decontamination Products to Enhance Water Sector Preparedness for All Hazards

**Work Assignment Contracting Officer
Representative (WACOR):**

Marissa Lynch
Office of Ground Water and Drinking
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Alternate WACOR:

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LOE:3625 Hours

PWS Sections: 2.3.2, 2.4.2, 2.4.6, 3.4.6, 5.1, 5.2, 6.1.3, 6.1.6, 7.1.1, 7.2.1, 7.2.3, 7.2.6, 7.6, 9.1, 9.7

Quality Assurance:

The tasks in this work assignment do not require environmental measurements. Consistent with the Agency's quality assurance (QA) requirements, the contractor does not need to supplement the Contract Level Quality Assurance Project Plan (QAPP) or to prepare a Project-Specific Quality Assurance Project Plan (PQAPP).

Purpose:

Contractor support is required to provide technical and administrative support to develop and finalize various decontamination tools and resources which help the water sector enhance preparedness for contamination incidents from all hazards in drinking and wastewater. The purpose of this work assignment is for the contractor to:

1. Conduct pilot tests of the Decontamination Tabletop Exercise Toolkit with a drinking water and wastewater utility. This task will also include development of a one- hour instructional training that provides an overview and usage of the toolkit. The training will be provided to the utilities prior to the pilot test. Once the Pilot test is completed, the contractor will update the Toolkit with any changes or lessons learned, where necessary.
2. Develop and design a web-based user interface for the Decontamination Online Training

for the Water Sector (Drinking Water and Wastewater Utilities). The contractor will update and finalize the content of the decontamination online training. Development of the training should leverage information from the Decontamination and Assessment Strategy (DPAS). In addition, the design of the training should follow the organization flow of DPAS. The training should include life experiences /case studies and scenarios to articulate the content of the training for the user. The training should also leverage any current decontamination information/resources, research, and products (videos) from various EPA programs that add value. Also, the contractor will determine the best interactive layout/software program for development of the online training. Once the training content is finalized, the contractor will assist the EPA WACOR in attaining CEUs for the training and conducting all necessary outreach for the training. The outreach will focus on working closely with Water Sector associations to develop informational materials. These items may include bulletin blasts, e-mails, blurbs, factsheets, and/or flyers to educate utilities and responders about the decontamination training opportunities available to aid in remediation and recovery activities following an all-hazard event.

3. Continue to facilitate and help the workgroup consisting of Environmental Protection Agency (EPA), Water Sector partners and stakeholders in coordinating activities on decontamination efforts. This includes following up on the progress of recommendations and decontamination activities listed in the 2008 *Critical Infrastructure Partnership Advisory Council (CIPAC) Water Sector Decontamination Working Group Recommendation and Proposed Strategic Plan*.
4. Provide programmatic support necessary to update the decontamination website and other outreach and communication activities (i.e., Webcasts for DPAS, TTX, and Decontamination Training; flyers, blurbs, bulletins, and etc.). Provide technical assistance for the development and incorporation of a biological scenario (*Francisella Tularensis*) into the Decontamination TTX toolkit.

Background:

The mission of the United States Environmental Protection Agency's Water Security Division (WSD) is to provide support to drinking water and wastewater systems to improve the security and resilience of our nation's water infrastructure. WSD has developed a variety of programs, training and resources to support Water Sector emergency preparedness in support of the Presidential Policy Directive 21 (PPD-21) and Homeland Security Presidential Directive 10 (HSPD-10). Under the PPD-21, federal departments and agencies have to identify and prioritize critical infrastructure and key resources and to protect them from terrorist attacks. PPD-21 provides a national approach to protecting critical infrastructure. Under HSPD-10, EPA is charged with developing strategies, guidelines, and plans for decontamination. Drinking water and wastewater systems can face major challenges when confronting a contamination incident—whether accidental or intentional, natural or man-made. The challenges include public health, as

well as isolating and treating contaminated water. Challenges also includes decontaminating the storage, treatment, and distribution infrastructure for recovery and return to service.

In 2007, EPA's Water Security Division worked closely with its partners and stakeholders to identify and prioritize key issues for the water sector in addressing decontamination of water systems from all-hazards contamination incidents. In October 2008, EPA and its partners prepared a strategy report, "*CIPAC Water Sector Decontamination Working Group Recommendation and Proposed Strategic Plan, Water Sector Decontamination Priorities*." The strategy provides recommendations on the priority issues and concerns as they relate to decontamination for the Water Sector. To date, a significant amount of work has been undertaken to further support decontamination research and policy needs and to communicate these efforts to Water Sector stakeholders. Of the 35 recommendations listed in the 2008 report, 23 are in progress and 3 have been identified as completed.

The WSD has worked with stakeholders to develop a suite of products including tools and resources to help address emergency response and decontamination efforts. These tools and resources will benefit the following water sector customers, partners and stakeholders: drinking water and wastewater utilities, emergency responders, other EPA programs and offices such as the Office of Wastewater Management (OWM), Office of Land and Emergency Management's (OLEM) Chemical, Biological, Radiological and Nuclear Consequence Management Advisory Division (CBRN CMAD), Environmental Response Team (ERT), and On-Scene Coordinators (OSCs). Additional partners include the National Homeland Security Research Center (NHSRC), Office of Homeland Security (OHS), Office of Recovery and Resource Conservation, Office of Chemical Safety and Pollution Prevention (OCSPP), critical infrastructure partnership partners (i.e., other Federal agencies, Regions, states, and local governments), and trade associations (i.e., American Water Works Association, Association of State Drinking Water Administrators (ASDWA) and Water Environment Federation (WEF).

Scope of Work:

All direction under this work assignment will be provided as written technical direction from the WACOR or alternate WACOR. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days with a copy to the Contract-Level Contracting Officer's Representative (CL-COR) and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR and EPA CL-COR in draft form for review and comment. The contractor shall incorporate WACOR review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

Under this work assignment, the WACOR will provide the contractor with electronic copies of the draft tools and resources for the contractor to perform the detailed tasks below.

Task Detail:

Task 0 – Work Plan Submission, Progress Evaluations and Monthly Reports

The contractor shall prepare a detailed work plan and budget for the accomplishment of the indicated tasks in accordance with the clause Work Assignments (EPAAR 1552.211-74). The work plan shall include a description of: (a) proposed staff; (b) the number of hours and labor classifications proposed for each task, broken down to task level, to include both prime contractor and subcontractor labor; and (c) a list of deliverables, with due dates and a schedule for deliverables.

In addition, the work plan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility>. If a subcontractor is proposed and the subcontractor is outside the metropolitan DC area, the contractor shall include information on plans to manage work and contract costs of proposed subcontractor.

The work plan shall also specify that a project-specific PQAPP supplement to the Quality Management Plan (QMP) is not required.

This task also includes monthly progress and financial reports which are to be submitted pursuant to Attachment 2 of the contract. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. Monthly Progress Reports shall be submitted detailing activities undertaken and completed each month with an indication of upcoming tasks to be performed and anticipated problem areas. The work plan shall also provide an analysis of the existing and projected constraints and the feasibility of accomplishing the project's purpose. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and if so, how they are being resolved.

The tasks under this work assignment do not require the acquisition of "off-site" facilities for conferences and meetings as defined in the IPN 12-05 and the events associated with this work assignment are not covered by EPA Order 1900.3 and do not require EPA Form 5170.

Task 1: Decontamination Tabletop Exercise (TTX) Trainer's Toolkit

In 2014 and 2015, WSD conducted 5 successful Decontamination Tabletop Exercises (TTXs) for Drinking Water and Wastewater Systems across the country. In order to expand the Decontamination Tabletop exercise effort in 2017, EPA developed a beta version of the Decontamination Tabletop Exercise Trainer's Toolkit. The toolkit will provide water utilities and other water sector stakeholders with the training, resources and documentation for them to plan and conduct their own decontamination tabletop exercises.

In this option period, the contractor shall help the WACOR to plan, coordinate and conduct two (2) pilot projects; one (1) drinking water utility and one (1) waste water utility. The

contractor shall assist the EPA WACOR in identifying the 2 utilities to conduct a pilot of the TTX toolkit. The contractor shall develop of a one- hour instructional training that provides an overview and usage of the toolkit. The training will be provided to the utilities prior to the pilot test.

Once the pilots are completed, the contractor shall summarize the lessons learned and make any necessary revisions to the Toolkit and the materials included. The contractor shall provide the updated web-based tool for final review. After review by the WACOR, the contractor shall finalize the web-based tool for release and assist in all necessary communication and outreach.

Task 2: Decontamination On-line Training for the Water Sector

This task addresses recommendation 6-4 of the 2008 “*CIPAC Water Sector Decontamination Working Group Recommendation and Proposed Strategic Plan, Water Sector Decontamination Priorities.*” The contractor shall develop Decontamination Online Training for the Water Sector, in accordance with technical direction. Using the previously developed content provided by the WACOR, the contractor shall update the content and develop an accessible web-based tool that will provide users with recommendations for treatment, containment, disposal of contaminated water, resources, references and knowledge questions necessary to decontaminate their water system and become resilient following an all-hazard contamination event. The web-based user interface shall be developed using an accessible programming language and computing platform that will maximize compatibilities with browsers (e.g. Internet Explorer), various operating systems (e.g. Windows), internet access (e.g. high speed) and devices (e.g. tablets). The contractor shall provide the WACOR with a mockup of the training for internal and external review. The WACOR will provide comments and after programming, the contractor shall provide the WACOR with the final web-based training for test and final review. After review by the WACOR, the contractor shall finalize the web-based training for release.

After finalization of the tool, the contractor shall assist the WACOR in attaining CEUs for users who complete the training and conducting all necessary outreach.

Task 3: Decontamination Preparedness and Assessment Workgroup

This task is to continue facilitating meetings, conference calls and webcasts with the Water Sector Utilities, Organizations, and Federal Agencies identified in the 2008 Decontamination Strategy to determine a roadmap that focuses on addressing the needs of the utilities. This task will include continuous engagement and collaboration with the SME workgroup to discuss action items for Decontamination for the water sector, and conduct a face-to-face meeting or conference calls with NHSRC and other associations to review the progress of recommendations and decontamination activities included in the 2008 CIPAC’s report *Recommendations and Proposed Strategic Plan: Water Sector Decontamination Priorities*. Tasks will also include updating the 2015 report - *Progress on Water Sector Decontamination Recommendations & Proposed Strategic Plan, if necessary*.

Within this task, the contractor shall assist the EPA WACOR to:

- Plan, schedule and facilitate conference calls four (4) and one (1) face-to-face meeting to discuss current recommendations in progress and to establish a path forward for those that have not been addressed.

Task 4: Decontamination Programmatic Support

The objective of this task is to provide scientific, engineering, training and technical support to facilitate and enhance the overall programmatic aspects of decontamination for the Water Sector. The contractor shall be tasked to support collaborations with other federal agencies, water utilities, and EPA regional personnel as needed to further the mission of Water Sector decontamination. Specific activities under this task will be assigned through written technical direction in response to decontamination program needs and shall be within the general scope of this work assignment. Tasks will include:

- Finalize DPAS, TTX as needed. The plan is to complete these deliverables in Option Period 1. However, there may be additional edits to finalize DPAS and the TTX.
- Develop, review and conduct Decontamination webcasts with interactive polling questions for (DPAS (5) and TTX (4)).
- Provide technical assistance to develop and incorporate the biological scenario (*Francisella Tularensis*) into the Decontamination TTX Toolkit.
- Continue to update the Decontamination Website and plan, develop and conduct a series of webinars (no more than 5) on decontamination related activities and issues. For the webinars, the contractor, among other things, shall schedule with the presenters, prepare agenda and other related materials, take notes during the webinar, arrange logistics when needed for conference rooms, etc, and conduct the webinar.

Meetings, Conferences, Training Events, Award Ceremonies and Receptions:

No single event under this work assignment is anticipated to exceed \$20,000. The contractor shall immediately notify the EPA Contracting Officer, CL-COR and WACOR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

Schedule of Deliverables:

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0: Workplan Submission		
	Workplan, budget, and QA supplemental (APS)	According to contract
	Monthly progress reports	Monthly
Task 1: Decontamination Tabletop Exercise Toolkit (TTX)		
	Pilot Test Web-based tool with utilities	September 2017 via written Technical Direction
	Revise tool based on lesson learned from Pilot tests	within 3 weeks via written Technical Direction
	Revised Interface based on EPA Feedback	within 2 weeks via written Technical Direction
	Final web-based tool	within 2 weeks via written Technical Direction
	Develop Instructional Training and assist with outreach	November 2017 via written Technical Direction
Task 2: Water Sector Online Decontamination Training		
	Update training material based on DPAS	August 2017 via written Technical Direction
	Address EPA's comments on updated content	within 2 weeks via written Technical Direction
	Revise content from internal and external review	within 3 weeks via written Technical Direction
	Finalize content and provide online training mock-up	within 2 weeks via written Technical Direction
	Address EPA's comment on mock-up	within 2 weeks via written Technical Direction
	Draft web-based online training	October 2017 via written Technical Direction
	Revise online training based on EPA's feedback	November 2017 via written Technical Direction
	Finalize online training	within 2 weeks via written Technical Direction
Task 3: Decontamination Preparedness and Assessment Workgroup		
	Develop invitation emails, schedule conference calls	within 2 weeks via written Technical Direction
	Develop Agendas	within 2 weeks via written Technical Direction
	Conduct conference calls/webinars/webcasts	within 2 weeks via written Technical Direction
	Conduct face-to-face meeting (if necessary)	within 2 weeks via written Technical Direction
Task 4: Decontamination Programmatic Support		
	Finalize DPAS and TTX, as needed	within 2 weeks via written Technical Direction
	Provide Outreach and communication for (webcasts DPAS (5) and TTX(4))	within 2 weeks via written Technical Direction
	Biological Scenario Inclusion into TTX	within 3 weeks via

		written Technical Direction
	Provide Outreach for Decontamination Training	within 2 weeks via written Technical Direction
	Prepare materials and update Decontamination website as needed	within 2 weeks via written Technical Direction

Miscellaneous:

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: <http://www.section508.gov/>

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

Contractor Identification

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, CL-COR and/or WACOR.

Printing

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

Technical Direction

The Contract level COR or an authorized individual is permitted to provide technical direction. Technical direction must be within the statement of work of the contract and includes: (1) Direction to the contractor which assists the contractor in accomplishing the Statement of Work, (2) Comments on and approval of reports or other deliverables. Technical direction will be issued in writing or confirmed in writing within five (5) calendar days after verbal issuance. One copy of the technical direction memorandum will be forwarded to the Contracting Officer and the Contract Level Contracting Officer Representative.

Quality Assurance Surveillance Plan

All task(s) identified in the performance work statement above are subject to review and approval by the WACOR based on the general guidelines of the contract quality assurance

surveillance plan regarding: Programmatic, cost control, schedule, and document development standards.

Work Assignment Form. (WebForms v1.0)

PERFORMANCE WORK STATEMENT
Cadmus EP-C-15-022
Work Assignment No. 2-34 Amendment 1
Performance Period: 7/01/17-6/30/18

Title: Decontamination Products to Enhance Water Sector Preparedness for All Hazards

**Work Assignment Contracting Officer
Representative (WACOR):**

Marissa Lynch
Office of Ground Water and Drinking
Water (OGWDW)
1200 Pennsylvania Avenue, NW
(MC: 4608T)
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degour.john@epa.gov

LOE: 5420 Total Hours (Base hours of 3625 and Amendment hours of 1795)

PWS Sections: 2.3.2, 2.4.2, 2.4.6, 3.4.6, 5.1, 5.2, 6.1.3, 6.1.6, 7.1.1, 7.2.1, 7.2.3, 7.2.6, 7.6, 9.1, 9.7

Quality Assurance:

The tasks in this work assignment do not require environmental measurements. Consistent with the Agency's quality assurance (QA) requirements, the contractor does not need to supplement the Contract Level Quality Assurance Project Plan (QAPP) or to prepare a Project-Specific Quality Assurance Project Plan (PQAPP).

Objective:

The objective of WA 2-34 Amendment 1 (**Decontamination Products to Enhance Water Sector Preparedness for All Hazards**) is to change the Alternate WACOR, add additional subtasks to Task 4 and add a new Task 5.

Purpose:

Contractor support is required to provide technical and administrative support to develop and finalize various decontamination tools and resources which help the water sector enhance preparedness for contamination incidents from all hazards in drinking and wastewater. The purpose of this work assignment is for the contractor to:

1. Conduct pilot tests of the Decontamination Tabletop Exercise Toolkit with a drinking water and wastewater utility. This task will also include development of a one- hour instructional training that provides an overview and usage of the toolkit. The training

will be provided to the utilities prior to the pilot test. Once the Pilot test is completed, the contractor will update the Toolkit with any changes or lessons learned, where necessary.

2. Develop and design a web-based user interface for the Decontamination Online Training for the Water Sector (Drinking Water and Wastewater Utilities). The contractor will update and finalize the content of the decontamination online training. Development of the training should leverage information from the Decontamination and Assessment Strategy (DPAS). In addition, the design of the training should follow the organization flow of DPAS. The training should include life experiences /case studies and scenarios to articulate the content of the training for the user. The training should also leverage any current decontamination information/resources, research, and products (videos) from various EPA programs that add value. Also, the contractor will determine the best interactive layout/software program for development of the online training. Once the training content is finalized, the contractor will assist the EPA WACOR in attaining CEUs for the training and conducting all necessary outreach for the training. The outreach will focus on working closely with Water Sector associations to develop informational materials. These items may include bulletin blasts, e-mails, blurbs, factsheets, and/or flyers to educate utilities and responders about the decontamination training opportunities available to aid in remediation and recovery activities following an all-hazard event.
3. Continue to facilitate and help the workgroup consisting of Environmental Protection Agency (EPA), Water Sector partners and stakeholders in coordinating activities on decontamination efforts. This includes following up on the progress of recommendations and decontamination activities listed in the 2008 *Critical Infrastructure Partnership Advisory Council (CIPAC) Water Sector Decontamination Working Group Recommendation and Proposed Strategic Plan*.
4. Provide programmatic support necessary to update the decontamination website and other outreach and communication activities (i.e., Webcasts for DPAS, TTX, and Decontamination Training; flyers, blurbs, bulletins, and etc.). Provide technical assistance for the development and incorporation of a biological scenario (*Francisella Tularensis*) into the Decontamination TTX toolkit.

Background:

The mission of the United States Environmental Protection Agency's Water Security Division (WSD) is to provide support to drinking water and wastewater systems to improve the security and resilience of our nation's water infrastructure. WSD has developed a variety of programs, training and resources to support Water Sector emergency preparedness in support of the Presidential Policy Directive 21 (PPD-21) and Homeland Security Presidential Directive 10 (HSPD-10). Under the PPD-21, federal departments and agencies have to identify and prioritize

critical infrastructure and key resources and to protect them from terrorist attacks. PPD-21 provides a national approach to protecting critical infrastructure. Under HSPD-10, EPA is charged with developing strategies, guidelines, and plans for decontamination. Drinking water and wastewater systems can face major challenges when confronting a contamination incident—whether accidental or intentional, natural or man-made. The challenges include public health, as well as isolating and treating contaminated water. Challenges also includes decontaminating the storage, treatment, and distribution infrastructure for recovery and return to service.

In 2007, EPA’s Water Security Division worked closely with its partners and stakeholders to identify and prioritize key issues for the water sector in addressing decontamination of water systems from all-hazards contamination incidents. In October 2008, EPA and its partners prepared a strategy report, “*CIPAC Water Sector Decontamination Working Group Recommendation and Proposed Strategic Plan, Water Sector Decontamination Priorities.*” The strategy provides recommendations on the priority issues and concerns as they relate to decontamination for the Water Sector. To date, a significant amount of work has been undertaken to further support decontamination research and policy needs and to communicate these efforts to Water Sector stakeholders. Of the 35 recommendations listed in the 2008 report, 23 are in progress and 3 have been identified as completed.

The WSD has worked with stakeholders to develop a suite of products including tools and resources to help address emergency response and decontamination efforts. These tools and resources will benefit the following water sector customers, partners and stakeholders: drinking water and wastewater utilities, emergency responders, other EPA programs and offices such as the Office of Wastewater Management (OWM), Office of Land and Emergency Management’s (OLEM) Chemical, Biological, Radiological and Nuclear Consequence Management Advisory Division (CBRN CMAD), Environmental Response Team (ERT), and On-Scene Coordinators (OSCs). Additional partners include the National Homeland Security Research Center (NHSRC), Office of Homeland Security (OHS), Office of Recovery and Resource Conservation, Office of Chemical Safety and Pollution Prevention (OCSPP), critical infrastructure partnership partners (i.e., other Federal agencies, Regions, states, and local governments), and trade associations (i.e., American Water Works Association, Association of State Drinking Water Administrators (ASDWA) and Water Environment Federation (WEF)).

Scope of Work:

All direction under this work assignment will be provided as written technical direction from the WACOR or alternate WACOR. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days with a copy to the Contract-Level Contracting Officer’s Representative (CL-COR) and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR and EPA CL-COR in draft form for review and comment. The contractor shall incorporate WACOR review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

Under this work assignment, the WACOR will provide the contractor with electronic copies of the draft tools and resources for the contractor to perform the detailed tasks below.

Task Detail:

Task 0 – Work Plan Submission, Progress Evaluations and Monthly Reports

The contractor shall prepare a detailed work plan and budget for the accomplishment of the indicated tasks in accordance with the clause Work Assignments (EPAAR 1552.211-74). The work plan shall include a description of: (a) proposed staff; (b) the number of hours and labor classifications proposed for each task, broken down to task level, to include both prime contractor and subcontractor labor; and (c) a list of deliverables, with due dates and a schedule for deliverables.

In addition, the work plan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility>. If a subcontractor is proposed and the subcontractor is outside the metropolitan DC area, the contractor shall include information on plans to manage work and contract costs of proposed subcontractor.

The work plan shall also specify that a project-specific PQAPP supplement to the Quality Management Plan (QMP) is not required.

This task also includes monthly progress and financial reports which are to be submitted pursuant to Attachment 2 of the contract. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. The work plan shall also provide an analysis of the existing and projected constraints and the feasibility of accomplishing the project's purpose. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and if so, how they are being resolved.

The tasks under this work assignment do not require the acquisition of “off-site” facilities for conferences and meetings as defined in the IPN 12-05 and the events associated with this work assignment are not covered by EPA Order 1900.3 and do not require EPA Form 5170.

Task 1: Decontamination Tabletop Exercise (TTX) Trainer's Toolkit

In 2014 and 2015, WSD conducted 5 successful Decontamination Tabletop Exercises (TTXs) for Drinking Water and Wastewater Systems across the country. In order to expand the Decontamination Tabletop exercise effort in 2017, EPA developed a beta version of the Decontamination Tabletop Exercise Trainer's Toolkit. The toolkit will provide water utilities and other water sector stakeholders with the training, resources and documentation for them to plan and conduct their own decontamination tabletop exercises.

In this option period, the contractor shall help the WACOR to plan, coordinate and conduct two (2) pilot projects; one (1) drinking water utility and one (1) waste water utility. The contractor shall assist the EPA WACOR in identifying the 2 utilities to conduct a pilot of the TTX toolkit. The contractor will develop of a one- hour instructional training that provides an overview and usage of the toolkit. The training will be provided to the utilities prior to the pilot test.

Once the pilots are completed, the contractor shall summarize the lessons learned, develop after action reports and make any necessary revisions to the Toolkit and the materials included. The contractor will provide the updated web-based tool for final review. After review by the WACOR, the contractor shall finalize the web-based tool for release and assist in all necessary communication and outreach.

Task 2: Decontamination On-line Training for the Water Sector

This task addresses recommendation 6-4 of the 2008 “*CIPAC Water Sector Decontamination Working Group Recommendation and Proposed Strategic Plan, Water Sector Decontamination Priorities.*” The contractor shall develop Decontamination Online Training for the Water Sector, in accordance with technical direction. Using the previously developed content provided by the WACOR, the contractor shall update the content and develop an accessible web-based tool that will provide users with recommendations for treatment, containment, disposal of contaminated water, resources, references and knowledge questions necessary to decontaminate their water system and become resilient following an all-hazard contamination event. The web-based user interface shall be developed using an accessible programming language and computing platform that will maximize compatibilities with browsers (e.g. Internet Explorer), various operating systems (e.g. Windows), internet access (e.g. high speed) and devices (e.g. tablets). The contractor shall provide the WACOR with a mockup of the training for internal and external review. The WACOR will provide comments and after programming, the contractor shall provide the WACOR with the final web-based training for test and final review. After review by the WACOR, the contractor shall finalize the web-based training for release.

After finalization of the tool, the contractor shall assist the WACOR in attaining CEUs for users who complete the training and conducting all necessary outreach.

Task 3: Decontamination Preparedness and Assessment Workgroup

This task is to continue facilitating meetings, conference calls and webcasts with the Water Sector Utilities, Organizations, and Federal Agencies identified in the 2008 Decontamination Strategy to determine a roadmap that focuses on addressing the needs of the utilities. This task will include continuous engagement and collaboration with the SME workgroup to discuss action items for Decontamination for the water sector, and conduct a face-to-face meeting or conference calls with NHSRC and other associations to review the progress of recommendations and decontamination activities included in the 2008 CIPAC’s report *Recommendations and Proposed*

Strategic Plan: Water Sector Decontamination Priorities. Tasks will also include updating the 2015 report - *Progress on Water Sector Decontamination Recommendations & Proposed Strategic Plan, if necessary.*

Within this task, the contractor shall assist the EPA WACOR to:

- Plan, schedule and facilitate conference calls four (4) and one (1) face-to-face meeting to discuss current recommendations in progress and to establish a path forward for those that have not been addressed.

Task 4: Decontamination Programmatic Support

The objective of this task is to provide scientific, engineering, training and technical support to facilitate and enhance the overall programmatic aspects of decontamination for the Water Sector. The contractor shall be tasked to support collaborations with other federal agencies, water utilities, and EPA regional personnel as needed to further the mission of Water Sector decontamination. Specific activities under this task will be assigned through written technical direction in response to decontamination program needs and shall be within the general scope of this work assignment. Tasks will include:

- Finalize DPAS, TTX as needed. The plan is to complete these deliverables in Option Period 1. However, there may be additional edits to finalize DPAS and the TTX.
- Develop, review and conduct Decontamination webcasts with interactive polling questions for (DPAS (5) and TTX (4)).
- Develop training content and conduct 10- Regional face-to face trainings on DPAS
- Develop training content and conduct 5- Regional face-to face trainings on the Decontamination TTX.
- Facilitate with communicational outreach to various water association, utilities, emergency responders, states, locals on DPAS and TTX.
- Collaborative work with the WLA team to develop workshops for small tribal utilities.
- Provide technical assistance to develop and incorporate the biological scenario (*Francisella Tularensis*) into the Decontamination TTX Toolkit.
- Continue to update the Decontamination Website and plan, develop and conduct a series of webinars (no more than 5) on decontamination related activities and issues. For the webinars, the contractor, among other things, shall schedule with the presenters, prepare agenda and other related materials, take notes during the webinar, arrange logistics when needed for conference rooms, etc, and conduct the webinar.

Task 5: Decontamination Regulatory Waiver Guide

The objective of this task addresses recommendation 12-1 of the 2008 CIPAC Report. This task will provide water utilities with the regulatory process on how to attain waiver prior to a contamination event. The document/ guide should encompass some of the following items:

- the steps required to initiate a case-by-case review of permitting challenges,
- role of disaster declaration,
- any regulatory changes due to population served,

- waivers and suspensions consistent in approach across all EPA regions and states,
- regulatory issues that may apply to discharge/disposal, decontamination of infrastructure, treatment and return to service.

Contractor should leverage lessons learned from Hurricane Katrina, BP Spill, and 2001 Anthrax attacks. The contractor should reference Office of Enforcement and Compliance Assurance (OECA) web page for waiver examples. Also, the contractor should reference other EPA programs such as OEM, ORCR, for additional waiver information

Special Reporting:

The Contractor shall submit a Monthly Progress Report detailing activities undertaken and completed each month with an indication of upcoming tasks to be performed and anticipated problem areas.

Meetings, Conferences, Training Events, Award Ceremonies and Receptions:

No single event under this work assignment is anticipated to exceed \$20,000. The contractor shall immediately notify the EPA Contracting Officer, CL-COR and WACOR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

Schedule of Deliverables:

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0: Workplan Submission		
	Workplan, budget, and QA supplemental (APS)	According to contract
	Monthly progress reports	Monthly
Task 1: Decontamination Tabletop Exercise Toolkit (TTX)		
	Pilot Test Web-based tool with utilities	September 2017 via written Technical Direction
	Revise tool based on lesson learned from Pilot tests	within 3 weeks via written Technical Direction
	Revised Interface based on EPA Feedback	within 2 weeks via written Technical Direction
	Final web-based tool	within 2 weeks via written Technical Direction
	Develop Instructional Training and assist with outreach	November 2017 via written Technical Direction

Task 2: Water Sector Online Decontamination Training		
	Update training material based on DPAS	August 2017 via written Technical Direction
	Address EPA's comments on updated content	within 2 weeks via written Technical Direction
	Revise content from internal and external review	within 3 weeks via written Technical Direction
	Finalize content and provide online training mock-up	within 2 weeks via written Technical Direction
	Address EPA's comment on mock-up	within 2 weeks via written Technical Direction
	Draft web-based online training	October 2017 via written Technical Direction
	Revise online training based on EPA's feedback	November 2017 via written Technical Direction
	Finalize online training	within 2 weeks via written Technical Direction
Task 3: Decontamination Preparedness and Assessment Workgroup		
	Develop invitation emails, schedule conference calls	within 2 weeks via written Technical Direction
	Develop Agendas	within 2 weeks via written Technical Direction
	Conduct conference calls/webinars/webcasts	within 2 weeks via written Technical Direction
	Conduct face-to-face meeting (if necessary)	within 2 weeks via written Technical Direction
Task 4: Decontamination Programmatic Support		
	Finalize DPAS and TTX, as needed	within 2 weeks via written Technical Direction
	Provide Outreach and communication for (webcasts DPAS (5) and TTX(4))	within 2 weeks via written Technical Direction
	Develop training content and conduct 10-Regional face-to face trainings on DPAS	within 3 weeks via written Technical Direction
	Develop training content and conduct 5-Regional face-to face trainings on DPAS	within 3 weeks via written Technical Direction
	Develop mini workshops for small tribal utilities	within 3 weeks via written Technical Direction
	Biological Scenario Inclusion into TTX	within 3 weeks via written Technical Direction
	Provide Outreach for Decontamination Tools (DPAS, TTX and Online Training)	within 2 weeks via written Technical Direction
	Prepare materials and update Decontamination website as needed	within 2 weeks via written Technical Direction
Task 5: Decontamination Waiver Guide		
	Develop Waiver Guide/Document	within 2 weeks via written Technical Direction

	Revise Guide based on EPA's feedback	within 2 weeks via written Technical Direction
	Finalize Guide	within 2 weeks via written Technical Direction

Miscellaneous:

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: <http://www.section508.gov/>

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, CL-COR and/or WACOR.

PRINTING

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

Technical Direction

The Contract level COR or an authorized individual is permitted to provide technical direction. Technical direction must be within the statement of work of the contract and includes: (1) Direction to the contractor which assists the contractor in accomplishing the Statement of Work, (2) Comments on and approval of reports or other deliverables. Technical direction will be issued in writing or confirmed in writing within five (5) calendar days after verbal issuance. One copy of the technical direction memorandum will be forwarded to the Contracting Officer and the Contract Level Contracting Officer Representative.

Quality Assurance Surveillance Plan

All task(s) identified in the performance work statement above are subject to review and approval by the WACOR based on the general guidelines of the contract quality assurance

surveillance plan regarding: Programmatic, cost control, schedule, and document development standards.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment </div> <div> Work Assignment Number 2-34 </div> </div>										
<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002										
Contract Number EP-C-15-022		Contract Period 09/01/2015 To 06/30/2018 Base Option Period Number 2		Title of Work Assignment/SF Site Name Decontamination Products						
Contractor Cadmus Group LLC, The			Specify Section and paragraph of Contract SOW 2.3.2, 2.4.2, 2.4.6, 3.4.6, 5.1, 5.2, 6.1.3, 6.1.6							
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval			Period of Performance From 07/01/2017 To 06/30/2018							
Comments: Additional PWS sections: 7.1.1, 7.2.1, 7.2.3, 7.2.6, 7.6, 9.1, 9.7. The purpose of this amendment 2 to Cadmus (EP-C-15-022) is to increase the NTE ceiling by \$75,000 to a total of \$225,000.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> (Max 2) Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period: 09/01/2015 To 06/30/2018		Cost/Fee:		LOE: 5,420						
This Action:				0						
Total:				5,420						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:			Cost/Fee			LOE:				
Cumulative Approved:			Cost/Fee			LOE:				
Work Assignment Manager Name Marissa Lynch						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 202-564-2761				
						FAX Number:				
Project Officer Name Nancy Parrotta						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 202-564-5260				
						FAX Number:				
Other Agency Official Name Lisa Mitchell-Flinn						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 513-487-2852				
						FAX Number:				
Contracting Official Name Harold D. Hincks						Branch/Mail Code:				
_____ (Signature) (Date)						Phone Number: 513-487-2146				
						FAX Number:				

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 2-34				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000003				
Contract Number EP-C-15-022			Contract Period 09/01/2015 To 06/30/2019 Base Option Period Number 2			Title of Work Assignment/SF Site Name Decontamination Products				
Contractor Cadmus Group LLC, The					Specify Section and paragraph of Contract SOW 2.3.2, 2.4.2, 2.4.6, 3.4.6, 5.1, 5.2, 6.1.3, 6.1.6					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 07/01/2017 To 06/30/2018				
Comments: Additional PWS sections: 7.1.1, 7.2.1, 7.2.3, 7.2.6, 7.6, 9.1, 9.7 The purpose of this amendment 3 to Cadmus (EP-C-15-022) WA 2-34 is to increase the ceiling by \$75,000 to a total of \$300,000.										
<input type="checkbox"/> Superfund						Accounting and Appropriations Data				<input checked="" type="checkbox"/> Non-Superfund
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO <input type="checkbox"/> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
09/01/2015 To 06/30/2019				5,420						
This Action:				0						
Total:				5,420						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Marissa Lynch <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-2761 FAX Number:				
Project Officer Name Nancy Parrotta <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-5260 FAX Number:				
Other Agency Official Name Lisa Mitchell-Flinn <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2852 FAX Number:				
Contracting Official Name Angela Lower <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2036 FAX Number:				